FILE 'AGRICOLA' ENTERED AT 15:55:22 ON 24 JAN 2001

FILE 'CABA' ENTERED AT 15:55:22 ON 24 JAN 2001
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FILE 'BIOSIS' ENTERED AT 15:55:22 ON 24 JAN 2001
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=> s germination

L1 160388 GERMINATION

=> s embryo

L2 334412 EMBRYO

=> s somatic

L3 95026 SOMATIC

=> s priming

L4 26090 PRIMING

=> s l1 and l2 and l3 and l4

L5 2 L1 AND L2 AND L3 AND L4

=> d l5

L5 ANSWER 1 OF 2 CABA COPYRIGHT 2001 CABI
AN 95:167953 CABA
DN 950314492
TI Seed biology: where do we go next
AU Mayer, A. M.; Come, D. [EDITOR]; Corbineau, F. [EDITOR]
CS Department of Botany, Hebrew University of Jerusalem, Jerusalem 91904, Israel.
SO Proceedings of the Fourth International Workshop on Seeds: basic and applied aspects of seed biology, Angers, France, 20-24 July, 1992. Volume 3, (1993) pp. 1095-1104.
Publisher: ASFIS. Paris
Meeting Info.: Proceedings of the Fourth International Workshop on Seeds: basic and applied aspects of seed biology, Angers, France, 20-24 July, 1992. Volume 3.
ISBN: 2-9507351-4-2
CY France
DT Conference Article
LA English

=>

=> full text l5

FULL IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

```
### Status: Path 1 of [Dialog]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)
Trying 3106900061...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
### Status: Signing onto Dialog
 ********
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS?nzf0xzjb ********
Welcome to DIALOG
### Status: Connected


Dialog level 00.12.12D

Last logoff:  11jan01 07:18:30
Logon file001 11jan01 13:51:53
KWIC is set to 50.
HILIGHT set on as '*'
*** NEW Current Year Ranges Install ***

File   1:ERIC  1966-2000/Dec 05
       (c) format only 2000 The Dialog Corporation

      Set  Items  Description
      ---  -----  -----------
?b 5,10,50,76,203
       11jan01 13:52:34 User260019 Session D34.1
            $0.41    0.118 DialUnits File1
     $0.41  Estimated cost File1
     $0.03  TYMNET
     $0.44  Estimated cost this search
     $0.44  Estimated total session cost   0.118 DialUnits


SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R)  1969-2001/Jan W2
         (c) 2001 BIOSIS
  File  10:AGRICOLA  70-2000/Dec
         (c) format only 2000 The Dialog Corporation
  File  50:CAB Abstracts  1972-2001/Dec
         (c) 2001 CAB International
*File  50: All 2000 updates have been reprocessed. Truncating CC
codes is recommended for full retrieval. See Help News50 for details.
  File  76:Life Sciences Collection  1982-2000/Oct
         (c) 2000 Cambridge Sci Abs
  File 203:AGRIS  1974-2000/Aug
         Dist by NAL, Intl Copr. All rights reserved

      Set  Items  Description
      ---  -----  -----------
?s somatic embryo(?)
      S1       0  SOMATIC EMBRYO(?)
?s germination
      S2  156397  GERMINATION
?s embryo
      S3  169368  EMBRYO
?s s2 and s3
          156397  S2
          169368  S3
      S4    7168  S2 AND S3
?s somatic
```

102

```
      S5   89210  SOMATIC
?s s4 and s5
            7168  S4
           89210  S5
      S6     806  S4 AND S5
?rd
...examined 50 records  (50)
...examined 50 records  (100)
...examined 50 records  (150)
...examined 50 records  (200)
...examined 50 records  (250)
...examined 50 records  (300)
...examined 50 records  (350)
...examined 50 records  (400)
...examined 50 records  (450)
...examined 50 records  (500)
...examined 50 records  (550)
...examined 50 records  (600)
...examined 50 records  (650)
...examined 50 records  (700)
...examined 50 records  (750)
...examined 50 records  (800)
...completed examining records
      S7     513  RD (unique items)
?d s7/8,k/all
```

Display 7/8,K/1 (Item 1 from file: 5)

DIALOG(R)File 5:(c) 2001 BIOSIS. All rts. reserv.

12787156 BIOSIS NO.: 200000540779

Anatomical study of zygotic and *somatic* embryos of Tilia cordata.

2000

REGISTRY NUMBERS: 94-75-7: 2 4-D; 21293-29-8: ABA; 21293-29-8: ABSCISIC ACID

DESCRIPTORS:

MAJOR CONCEPTS: Development; Morphology

BIOSYSTEMATIC NAMES: Tiliaceae--Dicotyledones, Angiospermae, Spermatophyta, Plantae

ORGANISMS: Tilia cordata (Tiliaceae)--*somatic* *embryo*, zygotic *embryo*

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Angiosperms; Dicots; Plants; Spermatophytes; Vascular Plants

CHEMICALS & BIOCHEMICALS: 2,4-D--plant growth regulator; ABA {abscisic acid}--plant growth regulator

CONCEPT CODES:

10060 Biochemical Studies-General

-more-

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?
```

Display 7/8,K/1 (Item 1 from file: 5)

DIALOG(R)File 5:(c) 2001 BIOSIS. All rts. reserv.

11102 Anatomy and Histology, General and Comparative-Gross Anatomy

25502 Developmental Biology-Embryology-General and Descriptive

51000 Morphology, Anatomy and Embryology of Plants

51510 Plant Physiology, Biochemistry and Biophysics-Growth, Differentiation

51514 Plant Physiology, Biochemistry and Biophysics-Growth Substances

51522 Plant Physiology, Biochemistry and Biophysics-Chemical Constituents

BIOSYSTEMATIC CODES:

26865 Tiliaceae

Anatomical study of zygotic and *somatic* embryos of Tilia cordata.

ABSTRACT: A comparative anatomical study was carried out on zygotic and *somatic* embryos of Tilia cordata Mill. to evaluate the effect of growth conditions on their development. Zygotic embryos (heart-shaped, torpedo,

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1661ahp
PASSWORD:ngd264kg
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'AGRICOLA, CABA, CAPLUS, BIOSIS'
AT 08:27:31 ON 05 FEB 2001
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CODEN: VMUBDF
DT Journal
LA Russian
CC 10-4 (Microbial Biochemistry)
Section cross-reference(s): 11
AB DNA of the oncogenic bacteria Agrobacterium tumefaciens, Bacterium scabigenum, **Corynebacterium fascians**, Pseudomonas savastonoi, Xanthomonas beticola and the nononcogenic phytopathogenic bacterium Xanthomonas hyacinthi belong to the GC type (GC content in these DNA is 59,6 53,6, 63,4, 62,0, 64,9 and 67,2 mole per cent resp.). N6-methyladenine, as a minor base (0,06-0,38 mole per cent), was found in DNA of all these bacteria. In addn. to this minor base, in DNA of Xanthomonas beticola, P. savastanoi, and A. tumefaciens, 5-methylcytosine (0.09-0.17 mol%) was also found. Thus, cells of the bacteria possess sp. methylases, which modify adenine and cytosine residues in DNA. DNA of all bacteria studied are characterized by a low degree of pyrimidine clustering; the greatest amt. of pyrimidine nucleotides is contained in mono- and dipyrimidine fragments (24,2-26,4 mol%). These common features of DNA structure of phytopathogenic bacteria (high GC content, methylation character, low pyrimidine clustering degree) distinguish them from higher plant DNA (lower GC content, different methylation character and higher pyrimidine clustering) and may be used for the discrimination of these DNA (or their fragments) in transformed plant cells.
ST bacteria tumor forming DNA compn
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(of phytopathogenic tumor- forming bacteria)
IT Agrobacterium tumefaciens
Bacterium scabigenum
Corynebacterium fascians
Pseudomonas savastanoi
Xanthomonas beticola
(tumor-forming, DNA compn. of)
IT Bacteria
(phytopathogenic, tumor-forming, DNA compn. of)
IT 443-72-1 554-01-8
RL: BIOL (Biological study)
(of DNA of phytopathogenic tumor-forming bacteria)

L1 ANSWER 155 OF 284 CAPLUS COPYRIGHT 2001 ACS

AN 1977:119223 CAPLU
DN 86:119223
TI Growth of yeasts on spent lucerne whey and their effectiveness in scavenging residual protein
AU Barnes, M. F.
CS Dep. Biochem., Lincoln Coll., Canterbury, N. Z.
SO N. Z. J. Agric. Res. (1976), 19(4), 537-41
CODEN: NEZFA7
DT Journal
LA English
CC 16-4 (Fermentations)
Section cross-reference(s): 60
AB The yeasts Saccharomyces and Rhodotorula were grown on spent lucerne whey under continuous culture and other culture conditions; cell yield was 5-6 g/L. The amt. of protein and amino acids remaining in the whey after fermn. was detd. as a means of checking the ability of these yeasts to scavenge this amino acid fraction from the whey. Saccharomyces in continuous culture gave the greater depletion of 2.8 g/L, which was improved by the addn. of carbohydrate to 3.7 g/L. These figures were, however, only 50% of the total amino acid fraction in the whey. Of a no. of other microorganisms tested, Pseudomonas and Aspergillus niger showed the most promise, but neither were as convenient as the yeasts.
ST yeast cultivation alfalfa whey; juice alfalfa yeast growth
IT Aspergillus niger
Corynebacterium fascians
Flavobacterium
Pseudomonas
Rhodotorula
Saccharomyces
(cultivation of, on alfalfa whey)
IT Wastewater
(from alfalfa leaf protein manuf., yeast cultivation on)
IT Proteins
RL: BIOL (Biological study)
(of alfalfa, manuf. of, yeast cultivation on wastewater from)
IT Alfalfa
(yeast cultivation on liq. from leaf protein manuf.)

L1 ANSWER 188 OF 284 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1998:83647 BIOSIS
DN PREV199800083647
TI (I): Fasciation- in Casuarina equisetifolia.
AU Prasad, N. Syam (1); Rama-Rao, A.; Maheswara-Rao, G.
CS (1) State Silviculturist, Regional Forest Res. Centre, Rajahmundry India
SO Indian Forester, (Aug., 1997) Vol. 123, No. 8, pp. 773-774.
ISSN: 0019-4816.
DT Article
LA English
CC Phytopathology - Diseases Caused by Bacteria *54504
Morphology, Anatomy and Embryology of Plants *51000
Forestry and Forest Products *53500
BC Irregular Nonsporing Gram-Positive Rods 08890
Casuarinaceae 25770
IT Major Concepts
Forestry; Infection; Pest Assessment Control and Management
IT Diseases
fasciation: bacterial disease
IT Miscellaneous Descriptors
stem malformation; symptomatology
ORGN Super Taxa
Casuarinaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae; Irregular Nonsporing Gram-Positive Rods: Actinomycetes and Related Organisms, Eubacteria, Bacteria, Microorganisms
ORGN Organism Name
Casuarina-equisetifolia (Casuarinaceae); **Corynebacterium-**

fascians (Irregul[redacted]Nonsporing Gram-Positive Rods) [redacted]
ORGN Organism Superterms
Angiosperms; Bacteria; Dicots; Eubacteria; Microorganisms; Plants; Spermatophytes; Vascular Plants

L1 ANSWER 189 OF 284 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1997:460676 BIOSIS
DN PREV199799759879
TI A simple DNA extraction method for PCR-based detection of Xanthomonas campestris pv. pelargonii in geraniums.
AU Sulzinski, M. A. (1); Moorman, G. M.; Schlagnhaufer, B.; Romaine, C. P.
CS (1) Dep. Biol., Univ. Scranton, Scranton, PA 18510 USA
SO Journal of Phytopathology (Berlin), (1997) Vol. 145, No. 5-6, pp. 213-215.
ISSN: 0931-1785.
DT Article
LA English
SL English; German
AB A simple method for PCR-based plant clinical diagnosis of bacterial blight of geraniums caused by Xanthomonas campestris pv. pelargonii is described.
The method entails maceration of infected tissues in water or 10 mM TrisHCl, pH 8.0 buffer, followed by treatment of the macerate with a commercially-available extraction matrix (GeneReleaser) in which nucleic acid is released by brief microwave heating. Nucleic acid prepared in this manner served directly as template for PCR amplification with primers targeting a sequence in the genome of the bacterium. Using this protocol, it was possible to quickly identify X. campestris pv. pelargonii in infected geraniums, whereas amplification products were not obtained with nucleic acid preparations from noninfected plants, or from plants infected with the bacterial pathogens, **Corynebacterium fascians** or Pseudomonas cichorii.
CC Biochemical Methods - Nucleic Acids, Purines and Pyrimidines *10052
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
Horticulture - Flowers and Ornamentals *53010
Phytopathology - Diseases Caused by Bacteria *54504
BC Pseudomonadaceae 06508
Irregular Nonsporing Gram-Positive Rods 08890
Geraniaceae *26105
IT Major Concepts
Biochemistry and Molecular Biophysics; Horticulture (Agriculture); Infection; Methods and Techniques
IT Miscellaneous Descriptors
CULTIVAR-PELARGONII; DIAGNOSTIC METHOD; DNA EXTRACTION METHOD; HOST; INFECTION; PCR-BASED DETECTION; PLANT PATHOGEN; POLYMERASE CHAIN REACTION-BASED DETECTION; PURIFICATION METHOD
ORGN Super Taxa
Geraniaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae; Irregular Nonsporing Gram-Positive Rods: Eubacteria, Bacteria;

DN IND85056571
TI Nomilin acetyl-lyase, a bacterial enzyme for nomilin debittering of citrus juices.
AU Herman, Z.; Hasegawa, S.; Ou, P.
AV DNAL (389.8 F7322)
SO Journal of food science, Jan/Feb 1985. Vol. 50, No. 1. p. 118-120, 124
Publisher: Chicago, Ill. : Institute of Food Technologists.
CODEN: JFDAZ6; ISSN: 0022-1947
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
CC Q505 Food Composition, Horticultural Crop Products
CT bitterness; citrus fruits; **corynebacterium fascians**; fruit juices; lyases
RN 1063-77-0 (NOMILIN)

L1 ANSWER 8 OF 284 AGRICOLA
AN 85:33391 AGRICOLA
DN IND85024141
TI **Corynebacterium fascians**: phytopathogenicity and numerical analysis of phenotypic features.
AU Elia, S.; Gossele, F.; Vantomme, R.; Swings, J.; Ley, J. De
AV DNAL (464.8 P562)
SO Phytopathologische Zeitschrift = Journal of phytopathology, June 1984. Vol. 110, No. 2. p. 89-105 ill
Publisher: Berlin, W. Ger. : Paul Parey.
CODEN: PHYZA3; ISSN: 0031-9481
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
SL German
CC F832 Plant Diseases, Bacterial
CT **corynebacterium fascians**; host parasite relationships; plant pathogens

L1 ANSWER 9 OF 284 AGRICOLA
AN 84:88100 AGRICOLA
DN IND84064792
TI **Corynebacterium fascians** (Tilford 1936) Dowson 1942 the causal agent of leafy gall on lily crops in Belgium [Pathogenicity, isolation and identification].
AU Vantomme, R.; Elia, S.; Swings, J.; Ley, J. de
AV DNAL (464.8 P21)
SO Parasitica., 1982 Vol. 38, No. 4. p. 183-192 ill
Publisher: Bruxelles : Assoc. pour les Etudes et Recherches de Zoologie appliquee et de Phytopathologie.
ISSN: 0031-1812
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
SL Dutch
CC F832 Plant Diseases, Bacterial
GT Belgium

L1 ANSWER 10 OF 284 AGRICOLA
AN 84:36034 AGRICOLA
DN IND84021367

TI Isolation of some strains of **Corynebacterium fascians** (Tilford) Dowson in Czechoslovakia [Phytopathogenic bacterium].
AU Ulrychova, M.; Petru, E.
AV DNAL (450 B52)
SO Biologia plantarum., 1983 Vol. 25, No. 1. p. 63-67
Publisher: Praha : Academia.
ISSN: 0006-3134
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
CC F832 Plant Diseases, Bacterial
GT Czechoslovakia

L1 ANSWER 11 OF 284 AGRICOLA
AN 83:141572 AGRICOLA
DN IND83117521
TI Quantitative analysis of free amino acids in either leafy gall induced by **Corynebacterium fascians** or its tissue culture.
AU El-Wakil, M.; Blakeny, E.
AV DNAL (SB731.A1J6)
SO Egyptian journal of phytopathology., 1980 (pub. 1982) Vol. 12, No. 1/2. p. 145-148
Publisher: Cairo : National Information and Documentation Centre.
ISSN: 0301-8180
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
SL Arabic
CC F832 Plant Diseases, Bacterial
RN 65072-01-7 (FREE AMINO ACIDS)

L1 ANSWER 12 OF 284 AGRICOLA
AN 83:135030 AGRICOLA
DN IND83115097
TI Relationships between growth and pathogenicity of **Corynebacterium fascians** (Tilford) Dowson Infection of peas, Pisum sativum. Relations entre la croissance et le pouvoir pathogene chez **Corynebacterium fascians** (Tilford) Dowson.
AU Rivain, J.G.; Roussaux, J.
AV DNAL (SB7.A3)
SO Agronomie : sciences des productions vegetales et de l'environnement., 1982 Vol. 2, No. 5. p. 479-485 ill
Publisher: Paris : Institut national de la recherche agronomique.
ISSN: 0249-5627
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA French
SL English
CC F832 Plant Diseases, Bacterial

L1 ANSWER 13 OF 284 AGRICOLA
AN 83:46617 AGRICOLA
DN IND83037197
TI Seed borne bacterial tumors in tobacco Nicotiana clevelandii x glutinose, **Corynebacterium fascians**. Proceedings of the fifth International Conference on Plant Pathogenic Bacteria, August 16-23, 1981 at CIAT, Cali, Colombia / technical editor J. Carlos Lozano; production

editor Paul Gwin.
AU Misra, A.; Jha, V.; Jha, S.; Sharma, B.P.
AV DNAL (QR351.I57 1981)
SO Proc Fifth Int Conf Plant Pathog Bact, 1982 p. 210-212 ill
Publisher: Cali, Colombia : Centro Internacional de Agricultura Tropical, 1982.
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
CC F832 Plant Diseases, Bacterial

L1 ANSWER 14 OF 284 AGRICOLA
AN 83:21653 AGRICOLA
DN IND83017456
TI A 78-megadalton plasmid occurs in avirulent strains as well as virulent strains of **Corynebacterium fascians** Causes a variety of plant diseases.
AU Lawson, E.N.; Gantotti, B.V.; Starr, M.P.
AV DNAL (QR1.C78)
SO Current microbiology., 1982 Vol. 7, No. 6. p. 327-332 ill
Publisher: New York : Springer International.
ISSN: 0343-8651
NTE 20 ref.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
CC F832 Plant Diseases, Bacterial

L1 ANSWER 15 OF 284 AGRICOLA
AN 82:30691 AGRICOLA
DN IND82017681
TI Recent observations on leafy gall in Liliaceae and some other families **Corynebacterium fascians**.
AU Miller, H.J.; Janse, J.D.; Kamerman, W.; Muller, P.J.
AV DNAL (464.8 T44)
SO Netherlands journal of plant pathology., 1980 Vol. 86, No. 2. p. 55-68 ill
Publisher: Wageningen, Netherlands Society of Plant Pathology.
ISSN: 0028-2944
NTE Bibliography p. 67-68.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
SL Dutch
CC F832 Plant Diseases, Bacterial

L1 ANSWER 16 OF 284 AGRICOLA
AN 81:93022 AGRICOLA
DN IND81071324
TI Recent observations on leafy gall **Corynebacterium fascians** in Liliaceae and some other families Ornamentals.
AU Miller, H.J.; Janse, J.D.; Kamerman, W.; Muller, P.J.
AV DNAL (464.8 T44)
SO Netherlands journal of plant pathology., 1980 Vol. 86, No. 2. p. 55-68 ill
Publisher: Wageningen, Netherlands Society of Plant Pathology.
ISSN: 0028-2944
NTE 23 ref.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

Importance; Symbiotic Nitrogen Fixation; KK100 Forestry (General)
GT New Zealand; Australia
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; trees; woody plants; Spermatophyta; plants; Puccinia; Uredinales; Basidiomycotina; Eumycota; fungi; Phytophthora; Peronosporales; Mastigomycotina; Myrtaceae; Myrtales; dicotyledons; angiosperms; Hordeum; Gramineae; Cyperales; monocotyledons; Australasia; Oceania
CT RHODOCOCCUS FASCIANS; metabolism; replant disease; barley; ecology; forest trees; environmental factors; microorganisms; biological activity in soil; plant pathogenic bacteria; cereals; fruit crops; plant pathology
ST Microbial ecology, NZ; microbial ecology; stone fruit; root response; suppressive soil; bacterial colonization
ORGN Puccinia hordei; Phytophthora cinnamomi; Eucalyptus; bacteria; Hordeum vulgare

L1 ANSWER 66 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:71366 CABA
DN 801364292
TI **Corynebacterium fascians** (Tilf.) Dows. as parasite on cauliflower
Corynebacterium fascians (Tilf.) Dows. ako parazit karfiolu
AU Zacha, V.
CS Inst. Agric., Bratislava, Czechoslovakia.
SO Ochrana Rostlin, (1979) Vol. 15, No. 4, pp. 305. 4 ref.
DT Journal
LA SLOVAKIAN
AB Malformations and fasciation of adventitious buds on the basal part of plants just above the soil surface were caused by C. fascians.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Czechoslovakia
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Brassica oleracea; Brassica; Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Central Europe; Europe
CT RHODOCOCCUS FASCIANS; cauliflowers; plant pathogenic bacteria; plant pathology
ORGN bacteria; Brassica oleracea var. botrytis

L1 ANSWER 67 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:71364 CABA
DN 801364287
TI Testing of plants suspected of **Corynebacterium fascians** infection
Test pro vysetreni rostlin podezrelych z ochuraveni vyvolaneho Cornebacterium fascians
AU Ulrychova, M.; Petru, E.; Jirsakova, E.
CS Inst. Exp. Bot., Czechoslovak Acad. Sci., Prague, Czechoslovakia.
SO Ochrana Rostlin, (1979) Vol. 15, No. 4, pp. 245-251. 3 fig., 1 tab. 15 ref.
DT Journal
LA Czech
SL Russian; English; German
AB Sweet pea seedlings 4-6 days old were pricked twice with a sterile needle in the epicotyl near the cotyledons and potted in sterile soil, then sprayed with 0.5 ml of a homogenate suspension of fasciations from naturally infected plants. A soil layer c. 1 cm thick was added, keeping the tops of the plants above the surface. The pots were placed in a glasshouse and evaluation was made 4 weeks later. Typical malformations

developed on a significant number of plants.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology
GT Czechoslovakia
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Lathyrus; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; Central Europe; Europe
CT techniques; RHODOCOCCUS FASCIANS; sweet peas; plant pathogenic bacteria; plant pathology
ST detecting; test plant
ORGN bacteria; Lathyrus odoratus

L1 ANSWER 68 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:71338 CABA
DN 801364226
TI Cytokinin production by microorganisms
AU Greene, E. M.
CS Univ. Wisconsin, Madison, USA.
SO Botanical Review, (1980) Vol. 46, No. 1, pp. 25-74. 1 fig., 3 tab. 236 ref.
ISSN: 0006-8101
DT Journal
LA English
SL German
AB This review deals with the excretion of cytokinins by **Corynebacterium fascians**, Agrobacterium tumefaciens, Rhizobium spp., Pseudomonas savastanoi, leaf nodule endophytes, other bacteria, ectomycorrhizal fungi and other fungi. Indirect evidence for cytokinin production by endophytes of nonleguminous root nodules, Plasmodiophora brassicae, rusts and mildews is also discussed, followed by reports of these substances in transfer RNA of all the organisms so far examined.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT plant growth regulators; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; fungi; Rhizobiaceae; Gracilicutes; Plasmodiophora; Plasmodiophorales; Myxomycota
CT reviews; cytokinins; RHODOCOCCUS FASCIANS; mycorrhizal fungi; plant pathogenic bacteria; plant pathology
ST Cytokinin production by micro-organisms; micro-organisms, review; Pseudomonas savastanoi
ORGN Rhizobium; Plasmodiophora brassicae; bacteria

L1 ANSWER 69 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:70190 CABA
DN 801362354
TI On the role of bacterial pathogens in Pelargonium
Zur Rolle bacterieller Krankheitserreger an Pelargonien
AU Brother, H.
CS Zent. Staatl. Amt fur Pflanzenschutz u. Pflanzenquarantane, Minist. Land-, Forst- und Nahrungsguterwirtschaft, German Democratic Republic.
SO Nachrichtenblatt fur den Pflanzenschutz in der DDR, (1979) Vol. 33, No. 11, pp. 225-228. 4 fig. 5 ref.
DT Journal
LA German
SL English; Russian
AB The importance of **Corynebacterium fascians** has decreased due to improved cultural and sanitary measures. Xanthomonas pelargonii causes stem rot. Plant damage can be prevented by using healthy plant material, effective hygiene, and physical and chemical control.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT German Democratic Republic; Germany
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; Central Europe; Europe; Western Europe
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant pathology
ST Xanthomonas pelargonii
ORGN Pelargonium; bacteria

L1 ANSWER 70 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:66977 CABA
DN 791357809
TI Tumours of begonia and some other ornamentals, induced by **Corynebacterium fascians**
AU Hoof, H. A. Van; Huttinga, H.; Knaap, A.; Maas Geesteranus, H. P.; Mosch, W. H. M.; Raay-Wieringa, D. G. J. de
CS Res. Inst. Pl. Prot., Wageningen, Netherlands.
SO Netherlands Journal of Plant Pathology, (1979) Vol. 85, No. 3, pp. 87-98. 7 fig., 2 tab. 15 ref.
ISSN: 0028-2944
DT Journal
LA English
SL Dutch
AB In 1975 many tumours were observed on the root collars of begonia cv. Schwabenland at Aalsmeer. Submerging roots of Nicotiana megalosiphon seedlings in a homogenate of the tumour tissue induced tumours after 2 weeks. The homogenates lost their infectivity after 10 min at 50 deg C. The causal agent was transmitted by aphids (Myzus persicae, M. ascalonicus and M. ornatus) but no virus or viroid could be isolated. Filtration through a 450 nm filter removed the agent. Cultures of C. fascians, isolated from tumours of N. megalosiphon, were highly infectious and induced tumours in healthy N. megalosiphon and begonia. Tumour tissue homogenates of Pelargonium, dahlia, Gladiolus and lily also caused tumours on N. megalosiphon from which the bacterium was isolated.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Netherlands
BT plants; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Begoniaceae; Violales; dicotyledons; angiosperms; Spermatophyta; Compositae; Asterales; Iridaceae; Liliales; monocotyledons; Geraniaceae; Geraniales; Liliaceae; Sternorrhyncha; Homoptera; Hemiptera; insects; arthropods; invertebrates; animals; Western Europe; Europe
CT ORNAMENTAL PLANTS; RHODOCOCCUS FASCIANS; transmission; plant pathogenic bacteria; plant pathology
ST Corynebacterium fasciens; Nicotiana megalosiphon; can infect
ORGN Begonia; Dahlia; Gladiolus; Pelargonium; Lilium; Aphidoidea; bacteria

L1 ANSWER 71 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:15646 CABA
DN 800384607
TI Recent observations on leafy gall in Liliaceae and some other families
AU Miller, H. J.; Janse, J. D.; Kamerman, W.; Muller, P. J.
CS Plantenziektenkundige Dienst, 6700 HC Wageningen, Netherlands.
SO Netherlands Journal of Plant Pathology, (1980) Vol. 86, No. 2, pp. 55-68. 8 pl. 23 ref.
ISSN: 0028-2944
DT Journal
LA English
SL Dutch
AB **Corynebacterium fascians**, which normally causes leaf galls, was shown to be responsible for unusual symptoms found recently in

lilies (chiefly in the bulblets) and known in Dutch as 'Woekerziekte'. The scales were deformed, sometimes pointed or rounded and were present in larger numbers than normal. Beneath these clusters a thickened ridge of yellowish gall-like tissue was often found. Diseased bulblets usually had reduced root growth. They were found over the whole length of the underground stem but occurred most frequently just under the soil surface. During field observations abnormal growth was not reported in bulblets formed in the leaf axils of the aerial parts of the stem. A number of lily cvs, including the Mid-Century cv. Enchantment, have shown symptoms and during the last 2 years C. fascians has also been found on Brodiaea laxa, Euphorbia pulcherrima, Hebe andersonii, Kalanchoe blossfeldiana and Verbascum nigrum. [See also HcA 49, 5154].

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Netherlands
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Crassulaceae; Rosales; dicotyledons; angiosperms; Hebe; Scrophulariaceae; Scrophulariales; Liliaceae; Liliales; monocotyledons; Euphorbiaceae; Euphorbiales; Alliaceae; Euphorbia; Triteleia; Western Europe; Europe
CT RHODOCOCCUS FASCIANS; poinsettias; diseases; hosts; ornamental plants; ornamental bulbs; plant pathogenic bacteria; plant pathology
ST Brodiaea laxa; Verbascum nigrum; Netherlands, symptoms
ORGN kalanchoe; Hebe andersonii; Lilium; Euphorbia; Brodiaea; Hebe; Verbascum; bacteria; Euphorbia pulcherrima; TRITELEIA LAXA

L1 ANSWER 72 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:13267 CABA
DN 800383417
TI The role of bacterial pathogens in pelargoniums
Zur Rolle bakterieller Krankheitserregers an Pelargonien
AU Brother, H.
CS Zentrales Staatliches Amt fur Pflanzenschutz, 15 Potsdam, German Democratic Republic.
SO Nachrichtenblatt fur den Pflanzenschutz in der DDR, (1979) Vol. 33, No. 11, pp. 225-228. 4 pl. 5 ref.
DT Journal
LA German
SL English; Russian
AB The economic importance and symptoms of infection by **Corynebacterium fascians** and Xanthomonas pelargonii are described and discussed. The importance of C. fascians has declined in recent years because of improved cultivation practices and hygiene. Infection with X. pelargonii appears as stem rot. Damage to pelargoniums can be prevented by: propagation by seed or meristem culture; using disease-free mother plants for vegetative propagation; soil disinfection with formaldehyde preparations; ensuring plant health by suitable NPK applications and optimum soil pH values (5 to 6.5); and spraying, as required, with Spritz-Cupral 45, captan or a sulphur preparation.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT dicarboximide fungicides; fungicides; pesticides; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms
CT Captan; SULFUR; diseases; RHODOCOCCUS FASCIANS; ornamental plants; ornamental herbaceous plants
ST Xanthomonas pelargonii; Spritz-Cupral 45
RN 133-06-2; 7704-34-9
ORGN pelargonium

L1 ANSWER 73 OF 284 CABA COPYRIGHT 2001 CABI

AN 79:65265 CABA
DN 791356568
TI Identification of plant pathogenic bacteria
De identificatie van plantepathogene bacterien
AU Miller, H. J.
CS Planteziektenkundige Dienst, Wageningen, Netherlands.
SO Gewasbescherming, (1978) Vol. 9, No. 4, pp. 75-80. 3 fig.
ISSN: 0166-6495
DT Journal
LA Dutch
AB Symptoms, morphological characteristics, opt. growth temp., biochemical and pathogenicity assays, the use of bacteriophages and serological investigations are discussed with reference to Agrobacterium radiobacter var. tumefaciens [A. tumefaciens], **Corynebacterium fascians** and Erwinia herbicola.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology
BT bacteria; prokaryotes; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; Agrobacterium; Rhizobiaceae; Gracilicutes; Erwinia; Enterobacteriaceae
CT techniques; plant pathogenic bacteria; RHODOCOCCUS FASCIANS; plant pathology
ST identifying
ORGN Agrobacterium tumefaciens; Erwinia herbicola; bacteria

L1 ANSWER 74 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:102054 CABA
DN 781940926
TI The survival of coryneform bacteria during periods of prolonged nutrient starvation
AU Boylen, C. W.; Mulks, M. H.
CS Department of Biology, Rensselaer Polytechnic Institute, Troy, New York 12181, USA.
SO Journal of General Microbiology, (1978) Vol. 105, No. 2, pp. 323-334. 49 ref.
ISSN: 0022-1287
DT Journal
LA English
AB Cultures of 16 coryneform bacteria were grown to late-exponential stage in nutrient media, washed, and starved in 30 mM-potassium phosphate buffer pH 7.0, with no external energy or carbon source. After 4 weeks starvation, 20 to 98% of each culture was still viable; after 8 weeks, 5 to 70% of each culture was still viable. Little change in cell shape or size was detected in Arthrobacter globiformis, A.nicotianae, Brevibacterium linens, **Corynebacterium fascians**, Mycobacterium rhodochrous and Nocardia roseum when studied by electron microscopy for up to 56 d, although there was a gradual disappearance of intracellular material. No resting structures were discernible. All organisms showed an immediate decrease in endogenous respiration to less than 1% of that observed during growth. A low basal level of endogenous metabolism equivalent to 0.01 to 0.03% of cellular carbon oxidized to CO2h-1 was maintained for 56 d. Carbohydrate, intracellular pools, protein, ribonucleic acid and deoxyribonucleic acid were utilized at varying rates by different organisms during this period. All species were effective in maintaining 20 to 70% of their Mg2+ content during a 28 d starvation period in the absence of any external Mg2+ . It would appear that the soil coryneform bacteria possess similar survival characteristics, which could explain, in part, their ecological success in natural environments.
CC ZZ400 Environmental Sciences (General); PP600 Pollution and Degradation; JJ100 Soil Biology; FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; survival; plant pathogenic bacteria; plant pathology
ST coryneform; survival in soil; bacteria, coryneform
ORGN bacteria

L1 ANSWER 75 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:66540 CABA
DN 781349754
TI Health selection of Pelargonium and Begonia X Elatior "Rieger" cuttings with respect to bacterioses, using immunofluorescence
Selection sanitaire des boutures de Pelargonium et de Begonia X Elatior "Rieger" vis-a-vis des bacterioses par utilisation de l'immunofluoresence
AU Digat, B.
CS Centre de Recherches Agronomiques d'Angers, INRA, Angers, France.
SO Annales de Phytopathologie, (1978) Vol. 10, No. 1, pp. 67-78. 4 fig., 2 tab. 22 ref.
DT Journal
LA French
SL English
AB Antisera against Xanthomonas pelargonii and X. begoniae were prepared from glycoprotein extracts, those against **Corynebacterium fascians** from conc. whole cell suspensions. Procedures of injection into rabbits and kinetics of the synthesis of antibodies are described. The results showed the close specificity and the high titre of the antisera obtained. The margin of error seemed to be between 0.2 and 0.5% for pelargonium stems with respect to X. pelargonii. X. begoniae was detected more often on begonia leaf blades than in the corresponding petioles. X. and C. fascians could be detected simultaneously on the same sample.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; FF160 Plant Propagation
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms; Begoniaceae; Violales; Pseudomonadaceae; Gracilicutes; Western Europe; Europe; Mediterranean Countries
CT RHODOCOCCUS FASCIANS; diseases; cuttings; sources; ornamental plants; ornamental bulbs; plant pathogenic bacteria; ornamental herbaceous plants; plant pathology
ST Xanthomonas pelargonii; serological detection; Xanthomonas begoniae
ORGN Pelargonium; Begonia; Xanthomonas; bacteria

L1 ANSWER 76 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:62109 CABA
DN 781341692
TI In vivo and in vitro interactions between Agrobacterium tumefaciens and **Corynebacterium fascians**
AU El-Goorani, M. A.; Abo-El-Dahab, M. K.; El-Wakil, M. A.
CS Alexandria Univ., Egypt.
SO Plant Disease Reporter, (1977) Vol. 61, No. 11, pp. 963-967. 2 fig., 1 tab. 17 ref.
DT Journal
LA English
AB When Datura innoxia stems were inoculated with a mixture of the bacteria no leafy gall symptoms were observed within 30 days. All plants inoculated with the mixed inocula or with A. tumefaciens alone developed crown gall symptoms. In vitro tests revealed no antagonism between the bacteria. A. tumefaciens grows faster than C. fascians; the av. generation time for the

former was c. 3.5 h and for the latter c. 6 h. This growth advantage would allow A. tumefaciens to establish preferentially in culture. C. fascians alone appeared to be able to grow continuously inside D. stems; with the interference of A. tumefaciens however, growth of C. fascians could not be freely established. This is the first record of an interaction between the 2 organisms.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Agrobacterium; Rhizobiaceae; Gracilicutes; Datura; Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants
CT interactions; RHODOCOCCUS FASCIANS; plant pathogenic bacteria; plant pathology
ST Datura innoxia; Agrobacterium tumefaciens + **Corynebacterium fascians**
ORGN Agrobacterium tumefaciens; bacteria; DATURA FASTUOSA

L1 ANSWER 77 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:61087 CABA
DN 771340153
TI The pathogens of diseases of soybean in the Khaborovsk region
O vozbuditelyakh zabolevaniya soi v Khabarovskom krae
AU Oksent'yan, U. G.
SO Tr. VNII Mikrobiol. Sredstv Zashchity Rast. i Bakter. Preparatov, (1976) No. 4, pp. 127-131.
Secondary Source: Referativnyi Zhurnal, Biologiya (1977) 7 L 680
DT Journal
LA Russian
AB Isolates from soybean stems were morphologically, culturally and biochemically similar to **Corynebacterium fascians**.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USSR
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants
CT soyabeans; RHODOCOCCUS FASCIANS; grain legumes; plant pathogenic bacteria; plant pathology
ORGN bacteria; Glycine (Leguminosae)

L1 ANSWER 78 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:60589 CABA
DN 771339383
TI Bacterial fasciation of Pelargonium hortorum in Hungary
AU Sule, S.
CS Res. Inst. Pl. Prot., Budapest, Hungary.
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1976) Vol. 11, No. 3/4, pp. 223-230. 4 fig. 17 ref.
DT Journal
LA English
AB This disease was found in Hungary in 1972 and symptoms included the occurrence of numerous short, thick and aborted new shoots or galls near the soil or at cutting wounds. Tests indicated that the causal organism was **Corynebacterium fascians**, which was also pathogenic to sweet pea.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Hungary
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Pelargonium; Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; Central Europe; Europe
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant pathology

ORGN Pelargonium hortorum; bacteria

L1 ANSWER 79 OF 284 CABA COPYRIGHT 2001 CABI
AN 78:52134 CABA
DN 770840205
TI Review of Soviet literature on plant parasitic nematodes associated with strawberries
AU Szczygiel, A.
SO Review of Soviet literature on plant parasitic nematodes associated with strawberries, (1977) pp. 63. Completed under Project No. PL-ARS-12 Grant No. FG-PO-289.
Brzezna: Research Institute of Pomology Experimental Station, Brzezna
CY Poland
DT Miscellaneous
LA English
AB Research conducted in the USSR since 1950 on Aphelenchoides fragariae, A. ritzemabosi, Ditylenchus dipsaci and root-parasitic nematodes on strawberry is comprehensively reviewed. The geographical distribution, alternate hosts, plant disease symptoms and internal changes, cultivar susceptibility, population dynamics and persistence are detailed for both Aphelenchoides spp. (found living ectoparasitically on buds and leaves) and Ditylenchus dipsaci (in leaf petioles, stolons, leaves and inflorescences), as are the economic consequences, means of dispersal and general biology. The host ranges of both Aphelenchoides spp. include many weeds of meadow and woodland with A. fragariae occurring more often in the USSR than A. ritzemabosi. The interaction between Aphelenchoides and **Corynebacterium fascians** is detailed and the concept of different races of D. dipsaci is discussed, the differences in chromosome shape between nematodes from various plant hosts providing evidence for the existence of such races. Hot-water treatment, methyl bromide fumigation and chemical sprays for control of Aphelenchoides spp. and various methods of plant disinfection and soil treatment for controlling D. dipsaci are reviewed. The geographical distribution, population dynamics, host damage and chemical control of migratory root-parasitic nematodes associated with strawberry in the USSR are also briefly reviewed. These include Helicotylenchus multicinctus, Tylenchorhynchus dubius, Rotylenchus robustus, Pratylenchus penetrans, Tylenchus agricola and Tetylenchus clavicaudatus. Methods of recovery of nematodes from strawberry are succinctly discussed. 98 references are cited.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USSR
BT invertebrates; animals; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants
CT strawberries; reviews; plant nematology; nematology
ORGN Nematoda; Fragaria

L1 ANSWER 80 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:99823 CABA
DN 771938088
TI Zeatin ribonucleosides in the transfer ribonucleic acid of Rhizobium leguminosarum, Agrobacterium tumefaciens, **Corynebacterium fascians**, and Erwinia amylovora
AU Cherayil, J. D.; Lipsett, M. N.
CS Lab. of Biochemistry and Metabolism, National Inst. of Arthritis, Metabolism and Digestive Diseases, Bethesda, Maryland 20014, USA. (M.N.L.).
SO Journal of Bacteriology, (1977) Vol. 131, No. 3, pp. 741-744. 18 ref.
ISSN: 0021-9193
DT Journal
LA English

AB Until recently, the presence in transfer ribonucleic acid (tRNA) of ribosylzeatin was thought to be unique to higher plants. This extension of work from several laboratories indicates the presence of 2-methylthioribosylzeatin in the tRNA of the plant-associated bacteria Rhizobium leguminosarum, Agrobacterium tumefaciens, and **Corynebacterium fascians**, but not in that of Erwinia amylovora. This cytokinin has the cis configuration, as is normally found in the tRNA's of plants. The tRNA thionucleotide patterns in these bacteria are different from those of E.coli, Bacillus subtilis, and Salmonella typhimurium.
CC FF040 Plant Composition; FF060 Plant Physiology and Biochemistry; JJ100 Soil Biology; FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators; Rhizobium; Rhizobiaceae; Gracilicutes; Agrobacterium; Erwinia; Enterobacteriaceae
CT RHODOCOCCUS FASCIANS; cytokinins; plant pathogenic bacteria; plant pathology
ST ribosylzeatin content; cytokinin content; PGRA
ORGN bacteria; Rhizobium leguminosarum; Agrobacterium tumefaciens; Erwinia amylovora

L1 ANSWER 81 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:63301 CABA
DN 771338986
TI Root galls on raspberry
AU Jones, G. E.; Catton, F. W.; Bateson, M.
CS ADAS, Cambridge, UK.
SO Plant Pathology, (1977) Vol. 26, No. 2, pp. 96-97.
ISSN: 0032-0862
DT Journal
LA English
AB **Corynebacterium fascians** was isolated from an unusual type of root gall found on 3 raspberry cvs. propagated at 2 different sites in Scotland, and is believed to constitute a new British record. ADDITIONAL ABSTRACT: Glen Isla, Glen Clova and Malling Delight were found to be infected by **Corynebacterium fascians**. Although galls were also found on Leo, C. fascians was not isolated.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; FF020 Plant Breeding and Genetics; HH600 Host Resistance and Immunity
GT UK
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Corynebacteriaceae; coryneform group of bacteria; Rubus; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants; British Isles; Western Europe; Europe
CT raspberries; RHODOCOCCUS FASCIANS; fruit crops; plant pathogenic bacteria; plant pathology
ST new records, host
ORGN Corynebacterium; bacteria; Rubus idaeus; Rubus

L1 ANSWER 82 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:63134 CABA
DN 771337447
TI Effect of three nematicides on the growth of some phytopathogenic bacteria and fungi
AU El-Khadem, M.; Mehiar, F.; Embabi, M. S.
CS Fac. Agric., Tanta Univ., Kafr El-Sheikh, Egypt.
SO Zentralblatt fur Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, 2, (1977) Vol. 132, No. 4, pp. 369-376. 5 fig. 12 ref.
DT Journal
LA English

SL German
AB Aldicarb, fensulfothion, and phenamiphos at 1, 5 and 125 ppm were tested against Agrobacterium tumefaciens, **Corynebacterium fascians**, Erwinia carotovora [var. carotovora], Pseudomonas solanacearum, Streptomyces scabies, Fusarium oxysporum f.sp. vasinfectum, F. solani, Rhizoctonia solani and Sclerotium bataticola [Macrophomina phaseolina]. Of the bacteria, P. solanacearum was most severely inhibited by the chemicals at all concs. The effect on the fungi varied greatly, F. solani and R. solani generally being most affected, followed by F. oxysporum. Fensulfothion was the most effective nematicide against the bacteria and phenamiphos, followed by fensulfothion, against the fungi. ADDITIONAL ABSTRACT: Aldicarb, fensulphothion and phenamiphos were tested against bacteria and fungi.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH400 Control by Chemicals and Drugs; HH000 Pathogen, Pest and Parasite Management (General)
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; pesticides; oxime carbamate insecticides; carbamate insecticides; carbamate pesticides; insecticides; organothiophosphate insecticides; organophosphorus insecticides; organophosphate nematicides; organophosphorus nematicides; nematicides; Nematoda; invertebrates; animals; Agrobacterium; Rhizobiaceae; Gracilicutes; Pseudomonas; Pseudomonadaceae; Streptomyces; Streptomycetaceae; Fusarium oxysporum; Fusarium; Deuteromycotina; Eumycota; fungi; Rhizoctonia; Macrophomina
CT RHODOCOCCUS FASCIANS; effects; nematicides; aldicarb; fensulfothion; FENAMIPHOS; plant parasitic nematodes; plant nematology; control; nematology; plant pathogenic bacteria; plant pathology
ST Erwinia carotovora var. carotovora; plant pathogenic bacteria and fungi; fensulphothion
RN 116-06-3; 115-90-2; 22224-92-6
ORGN Agrobacterium tumefaciens; Pseudomonas solanacearum; Streptomyces scabies; Fusarium oxysporum f.sp. vasinfectum; Fusarium solani; Rhizoctonia solani; Macrophomina phaseolina; bacteria

L1 ANSWER 83 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:59459 CABA
DN 771333315
TI Cytokinins in **Corynebacterium fascians** cultures. Isolation and identification of 6-(4-hydroxy-3-methyl-cis-2-butenylamino)-2-methylthiopurine
AU Armstrong, D. J.; Scarbrough, E.; Skoog, F.; Cole, D. L.; Leonard, N. J.
CS Inst. Pl. Developm., Birge Hall, Univ. Wisconsin, Madison, Wis., USA.
SO Plant Physiology, (1976) Vol. 58, No. 6, pp. 749-752. 2 fig., 2 tab. 28 ref.
ISSN: 0032-0889
DT Journal
LA English
AB In addition to the 4 cytokinins and the cis and trans isomers of purine, reported earlier, 3 cytokinin-active fractions were obtained from the aqueous medium of 6-day-old C. fascians cultures. One of these was identified. The elution vols. of the other 2 fractions indicate trace amounts of 2 ribonucleosides.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators
CT RHODOCOCCUS FASCIANS; cytokinins; plant pathogenic bacteria; plant pathology
ORGN bacteria

L1 ANSWER 84 OF 284 CABA COPYRIGHT 2001 CABI

AN 77:58922 CABA
DN 761332529
TI Bacteria - the pathogens of pathological tumours on plants as the producers of biologically active substances
Bakterii - vozluditeli patologicheskikh novoobrazovanii u rastenii kak produtsenty biologicheskikh aktivnykh veshchestv
AU Galach'yan, R. M.; Davlyan, A. R.
SO Probl. onkol. i teratol. rastenii, (1975) pp. 42-45.
Publisher: Nauka. L[eningrad]
Secondary Source: Referativnyi Zhurnal, Biologiya (1976) 8 L 599
CY USSR
DT Miscellaneous
LA Russian
AB Auxins, gibberellins and similar substances were established in metabolites of Xanthomonas beticola, Agrobacterium tumefaciens and **Corynebacterium fascians**.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Agrobacterium; Rhizobiaceae; Gracilicutes
CT RHODOCOCCUS FASCIANS; growth regulators; plant pathogenic bacteria; plant pathology
ST Xanthomonas beticola
ORGN Agrobacterium tumefaciens; bacteria

L1 ANSWER 85 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:57420 CABA
DN 761330058
TI Mechanism of D-alanine production by **Corynebacterium fascians**
AU Yamada, S.; Wada, M.; Izuo, N.; Chibata, I.
CS Tanabe Seiyaku Co. Ltd., Yodogawa-ku, Osaka, Japan.
SO Applied and Environmental Microbiology, (1976) Vol. 32, No. 1, pp. 1-6. 2 graphs, 6 tab.
ISSN: 0099-2240
DT Journal
LA English
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; plant pathogenic bacteria; plant pathology
ST D-alanine production
ORGN bacteria

L1 ANSWER 86 OF 284 CABA COPYRIGHT 2001 CABI
AN 77:15865 CABA
DN 770352062
TI New aspects of the control of geranium bacterial diseases
Aspects nouveaux en matiere de lutte contre les bacterioses du pelargonium
AU Digat, B.
CS INRA, Station de Pathologie Vegetale et Phytobacteriologie, 49-Beaucouze, Angers, France.
SO Pepinieristes Horticulteurs Maraichers, (1977) No. 174, pp. 17-23. 7 col.pl., 2 fig. 15 ref.
DT Journal
LA French
AB A review and discussion. Pelargonium X hortorum and P. X hederaefolium are the most important commerical pot plants in France and West Germany, with some 40-50 million plants sold each year. Xanthomonas pelargonii and **Corynebacterium fascians** can cause heavy losses. The symptoms of both diseases are described and illustrated. Sanitary

prevention is better than control. Methods of detection, enabling continuous checking for both diseases, are outlined.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms; Western Europe; Europe; Mediterranean Countries
CT RHODOCOCCUS FASCIANS; diseases; techniques; ornamental plants; ornamental herbaceous plants; plant pathogenic bacteria; plant pathology
ST Xanthomonas pelargonii; detecting; bacteria in Pelargonium
ORGN pelargonium; bacteria

L1 ANSWER 87 OF 284 CABA COPYRIGHT 2001 CABI
AN 76:67540 CABA
DN 761332079
TI Flower disease investigations in 1975
Bloemisterij onderzoek in Nederland over 1975
AU Rattink, H.; Hakkaart, F. A.; Beuzenberg, M. P.; Hoof, H. A. Van; Steekelenburg, N. A. M. Van; Runia, W. T.
CS Netherlands, Proefstation voor de Bloemisterij; Linnaeuslaan 2a, Aalsmeer, Netherlands.
SO Bloemisterij onderzoek in Nederland over 1975, (1976) pp. 222. Illus. See RPP 55, 4738.
Publisher: Proefstation voor de Bloemisterij. Aalsmeer
CY Netherlands Antilles
DT Report; Company Publication
LA Dutch
AB A continuation of 'Jaarverslag van het Proefstation voor de Bloomisterij'. Disease studies are mostly arranged in alphabetical order of the hosts. Some of the information has already been noticed.H. Rattink (48-53, 2 fig., 7 tab.) summarized results of investigations on Fusarium oxysporum and F. [o. var.] redolens on carnations.F.A. Hakkaart (67-68, 1 fig.) reports on the identification of dasheen mosaic virus in diseased Dieffenbachia plants by means of the indicator Philodendron selloum.Rattink (69-70) serologically identified Xanthomonas begoniae on begonia and showed that proliferations on the soil-covered stems were caused by **Corynebacterium fascians**.M.P. Beuzenberg (70-74) tested plant protectants on mother plants and cuttings of begonia.H.A. Van Hoof (87-88) reports tomato black ring virus on Campanula mayiiN.A.M. Van Steekelenburg (91) obtained best control of Didymella chrysanthemi [Mycosphaerella ligulicola] on chrysanthemum with mancozeb at 0.24% a.i., applied either before or after infection, and chlorothalonil before infection.W.T. Runia (92) investigated the effect of chrysanthemum stunt virus on Compositae.Beuzenberg (102-103) controlled root rot (Cylindrocarpon, Thielaviopsis and Pythium) on Aralia elegantissima with aaterra + benlate (each 125 g/m3) mixed in the potting soil amended with charcoal. Against Alternaria raphani mancozeb at 3 g/l water, applied every 2 weeks avoiding the foliage, was most effective.Hakkaart (159-161) describes the diagnosis of pelargonium viruses on detached leaves of Chenopodium quinoa and the elimination of viruses by meristem tip culture and thermotherapy.Beuzenberg (184-185) reports that in trials against powdery mildew [Sphaerotheca pannosa] on rose, wepsyn had a good curative and a long lasting prophylactic effect, especially during dry, sunny weather. ADDITIONAL ABSTRACT: Pp. 217-218. Weed control in crops under glass. Treatments discussed include pre-planting treatment and overall spraying of chrysanthemums with propyzamide at 1 and 3 kg/ha, which caused no injury to the treated or the following crop and pre-planting treatment of bedding plants with monamide[?], simazine, propachlor or chloroxuron

which were better tolerated than post-planting treatment with chloroxuron. Oxalis acetosella [?], an increasingly troublesome weed in glasshouses, was not satisfactorily controlled by simazine, chloroxuron or propyzamide; control with repeated applications of paraquat, diquat or glyphosate was good but was not selective to the crop plants. ADDITIONAL ABSTRACT: This report, replacing the earlier annual report of the Experimental Station for Floriculture at Aalsmeer [see HcA 46, 5898], includes the results of research carried out at other centres in the Netherlands. Progress is reported on the following ornamental crops: Alstroemeria: The effects of lighting on flowering of cv. Orchid; shoot thinning for cv. Regina; and short-day treatment for cv. Orchid. Anthurium: NK fertilization trials, spacings, selection for flower production; and tissue culture for A. andreanum; and temperature requirements and sources of irrigation water for A. scherzerianum. Araceae: Virus diseases of Dieffenbachia and related aroids. Asparagus plumosus: Sources of irrigation water. Azalea: Foot- and root-rots (Cylindrocladium scoparium); chemical pruning; and advancing flowering by the use of growth regulators. Begonia: Bacterial diseases; plant responses to fungicides and insecticides; new cvs; temperature requirements; breeding and selection of Elatior begonias; soil pH requirements of cv. Schwabenland; and propagation by cuttings. Bromeliads: NPK fertilization for Vriesea splendens; and control of Rhizoecus spp. on bromeliad roots. Browallia speciosa: Variety trials. Calceolaria: Breeding and selection of C. multiflora. Campanula: Studies on tomato black ring virus. Carnation: Variety trials; flowering responses to lighting; studies on photosynthesis; soil disinfection for controlling Fusarium spp.; effect of virus disease on flower colour; natural mutation in cv. Arthur Sim; relative costs of growing media; regulation of flowering peaks; studies on virus diseases; control of wilt (Fusarium spp.) diseases; sources and salinity of irrigation water; and transport of cut flowers.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH000 Pathogen, Pest and Parasite Management (General); AA000 Agriculture (General)

GT Netherlands

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; dithiocarbamate fungicides; carbamate pesticides; pesticides; fungicides; aromatic fungicides; benzimidazole fungicides; phenylurea herbicides; urea herbicides; herbicides; quaternary ammonium herbicides; organophosphorus herbicides; chloroacetanilide herbicides; anilide herbicides; amide herbicides; triazine herbicides; plants; Fusarium; Deuteromycotina; Eumycota; fungi; Fusarium oxysporum; Araceae; Arales; monocotyledons; angiosperms; Spermatophyta; Begoniaceae; Violales; dicotyledons; Compositae; Asterales; Alternaria; Geraniaceae; Geraniales; Chenopodium; Chenopodiaceae; Caryophyllales; Sphaerotheca; Erysiphales; Ascomycotina; Oxalis; Oxalidaceae; Alstroemeriaceae; Liliales; Ericaceae; Ericales; Vriesea; Bromeliaceae; Bromeliales; Browallia; Solanaceae; Solanales; Scrophulariaceae; Scrophulariales; Campanulaceae; Campanulales; Cylindrocladium; Liliaceae; Dianthus; Caryophyllaceae; Rosaceae; Rosales; potyvirus group; plant viruses; viruses; nepovirus group; Didymella; Dothideales; Dizygotheca; Araliaceae; Apiales; Western Europe; Europe

CT carnations; identification; RHODOCOCCUS FASCIANS; control; mancozeb; chlorothalonil; effects; diseases; benomyl; diagnosis; roses; chloroxuron; diquat; glyphosate; paraquat; propachlor; propyzamide; simazine; usage; crops; selectivity; ornamental plants; plant pathogenic bacteria; plant pathology

ST Res. Sta. flower diseases; study; dasheen mosaic virus; Xanthomonas begoniae; Campanula mayii; tomato black ring virus; Mycosphaerella ligulicola; Chrysanthemum stunt virus; Aralia elegantissima; aaterra; Aralia elegantissima diseases; meristem culture; indicator; Pelargonium viruses; wepsyn; Chrysanthemum (chrysanthemum); ornamental and turf; Bloemisterij onderzoek in Nederland; plumosus

RN 8018-01-7; 1897-45-6; 17804-35-2; 1982-47-4; 2764-72-9; 1071-83-6;

38641-94-0; 70393-85-0; 4685-14-7; 1910-42-5; 2074-50-2; 1918-16-7; 23950-58-5; 122-34-9
ORGN Fusarium oxysporum; Fusarium oxysporum var. redolens; Dieffenbachia; Begonia; Chrysanthemum; Compositae; Alternaria raphani; Pelargonium; viruses; Chenopodium quinoa; Sphaerotheca pannosa; Oxalis acetosella; Alstroemeria; anthurium; Araceae; rhododendron; Vriesea splendens; Bromeliaceae; Browallia speciosa; calceolaria; Campanula; Cylindrocladium scoparium; Fusarium; asparagus; bacteria; Dianthus caryophyllus; Rosa; DASHEEN MOSAIC POTYVIRUS; TOMATO BLACK RING NEPOVIRUS; DIDYMELLA CHRYSANTHEMI; DIZYGOTHECA ELEGANTISSIMA

L1 ANSWER 88 OF 284 CABA COPYRIGHT 2001 CABI
AN 76:64061 CABA
DN 761325885
TI Bacterial fasciation of gladiolus
Bakterialni nadorovitost gladiolu
AU Zacha, V.; Moravcik, E.
CS Ustr. Kontr. Skuv. Ust. Pol'noh., Bratislava, Czechoslovakia.
SO Ochrana Rostlin, (1975) Vol. 11, No. 2, pp. 163-164. 2 fig.
DT Journal
LA Czech
AB The disease, caused by **Corynebacterium fascians**, is characterized by a large, fleshy, yellow-white swelling at the base of the corm. Growth of infected plants was retarded.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Czechoslovakia
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Iridaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; Central Europe; Europe
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant pathology
ORGN Gladiolus; bacteria

L1 ANSWER 89 OF 284 CABA COPYRIGHT 2001 CABI
AN 76:14762 CABA
DN 760339071
TI Stimulation and inhibition reactions in plants infected by **Corynebacterium fascians** (Tilford) Dowson
AU Roussaux, J.
CS Universite Pierre et Marie Curie, 75005 Paris, France.
SO Marcellia, (1975) Vol. 38, No. 4, pp. 305-310. 5 fig. 11 ref.
DT Journal
LA English
SL French
AB Stimulation and inhibition reactions are strongly intermixed during the development of witches' brooms on pea plants by C. fascians. This could be due to the differential sensitivities of normal morphogenetic mechanisms to the progressive accumulation of endogenous cytokinin in the host tissues.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; Western Europe; Europe; Mediterranean Countries
CT RHODOCOCCUS FASCIANS; Cytokinins; PEAS; diseases; GROWTH REGULATORS; plant diseases; vegetables; vegetable legumes; grain legumes; plant pathogenic bacteria; plant growth regulators; plant pathology
ST endogenous; reactions
ORGN Leguminosae; bacteria

L1 ANSWER 90 OF 284 CABA COPYRIGHT 2001 CABI
AN 76:14675 CABA
DN 760338380
TI Bud relationships in plants inoculated with **Corynebacterium fascians**
Relations entre bourgeons dans les plantes inoculees avec **Corynebacterium fascians**
AU Roussaux, J.; Hoffelt, M.
CS Universite Pierre et Marie Curie, Paris, France.
SO Canadian Journal of Botany, (1975) Vol. 53, No. 17, pp. 1934-1941. 1 pl., 2 fig. 12 ref.
ISSN: 0008-4026
DT Journal
LA French
SL English
AB When witches' brooms were induced in pea seedlings by C. fascians inoculum after a systemic infection or a local infection at leaf axillae, no mutual inhibition was observed between shoots stimulated by bacteria. The growth of these abnormal shoots was reduced and finally ceased. This was not determined by a trophic competition but by an accumulation of inhibitors in buds. During their development witches' brooms inhibited healthy buds of the host by a deviation of nutrients from their normal destination, as was shown by the repartition of 32P in inoculated plants.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; Western Europe; Europe; Mediterranean Countries
CT RHODOCOCCUS FASCIANS; PEAS; diseases; buds; vegetables; vegetable legumes; grain legumes; plant pathogenic bacteria; plant pathology
ORGN Leguminosae; bacteria

L1 ANSWER 91 OF 284 CABA COPYRIGHT 2001 CABI
AN 76:7890 CABA
DN 750332843
TI Altered levels of indoleacetic acid and cytokinin in geranium stems infected with **Corynebacterium fascians**
AU Balazs, E.; Sziraki, I.
CS Research Institute for Plant Protection, Budapest, Hungary.
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1974) Vol. 9, No. 3/4, pp. 287-292. 19 ref.
DT Journal
LA English
AB Tumour tissues of leafy galls of geranium cv. Irene infected with C. fascians contained less IAA and showed increased cytokinin activity in tissue culture bioassay compared with healthy stem tissues. Three active compounds, chromatographically similar to zeatin, zeatinriboside and N6(DELTA 2-isopentenyl)-adenine were present both in healthy and infected stems. Tumour tissues of leafy galls contained an additional cytokinin. The total cytokinin activity in extracts from leafy gall tissues was much greater than that in extracts from healthy stem tissues.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT plant growth regulators; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms
CT Cytokinins; diseases; RHODOCOCCUS FASCIANS; GROWTH REGULATORS; plant diseases; ornamental plants; ornamental herbaceous plants; plant growth regulators
ST **Corynebacterium fascians** IAA; endogenous

ORGN pelargonium

L1 ANSWER 92 OF 284 CABA COPYRIGHT 2001 CABI
AN 75:66075 CABA
DN 751324059
TI Persistence of pea cotyledons induced by **Corynebacterium fascians**
AU Oduro, K. A.; Munnecke, D. E.
CS Univ. California, Riverside, USA.
SO Phytopathology, (1975) Vol. 65, No. 10, pp. 1114-1116. 2 fig., 1 tab.
ISSN: 0031-949X
DT Journal
LA English
AB C. fascians caused fasciation in garden pea and a permanent retention of the morphological integrity of its cotyledons. Dry wt. of the cotyledons decreased to 14% of the original wt. 4 weeks after inoculation and planting. In contrast, cotyledons of noninoculated pea plants shrivelled in 2 weeks and decomposed shortly thereafter. Nutrients were utilized much more slowly in the diseased plants than in the control. The effects on the cotyledons may serve as a new bioassay for determining cytokinins, and a tool for studying infection by C. fascians.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USA
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; North America; America
CT PEAS; RHODOCOCCUS FASCIANS; diseases; grain legumes; vegetables; vegetable legumes; plant pathogenic bacteria; plant pathology
ST cotyldeons
ORGN Leguminosae; bacteria

L1 ANSWER 93 OF 284 CABA COPYRIGHT 2001 CABI
AN 75:65588 CABA
DN 751320822
TI Factors affecting epidemiology of bacterial fasciation of Chrysanthemum maximum
AU Oduro, K. A.
CS Univ. California, Riverside, USA.
SO Phytopathology, (1975) Vol. 65, No. 6, pp. 719-721. 4 fig.
ISSN: 0031-949X
DT Journal
LA English
AB The severity of bacterial fasciation of C. maximum caused by **Corynebacterium fascians** appeared to increase with the length of time plants are diseased, and with the removal of apical buds. Garden pea seedlings responded rapidly to inoculation in glasshouse tests. Since root pieces of C. maximum used for propagation were the main sources of inoculum in the field, the use of clean planting material for control is emphasized.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Fabales; Leucanthemum
CT RHODOCOCCUS FASCIANS; epidemiology; diseases; PEAS; ornamental plants; ornamental herbaceous plants; plant pathogenic bacteria; vegetables; vegetable legumes; plant pathology
ST Chrysanthemum maximum; maximum
ORGN chrysanthemum; bacteria; Leguminosae; LEUCANTHEMUM MAXIMUM

L1 ANSWER 94 OF 284 CABA COPYRIGHT 2001 CABI

AN 75:63564 CABA
DN 751318589
TI Altered levels of indoleacetic acid and cytokinin in geranium stems infected with **Corynebacterium fascians**
AU Balazs, E.; Sziraki, I.
CS Res. Inst. Plant Prot., Budapest, Hungary.
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1974) Vol. 9, No. 3/4, pp. 387-292. 3 tab.
DT Journal
LA English
AB Tumour tissues of leafy galls of Pelargonium zonale infected with C. fascians contain decreased amounts of IAA and show increased cytokinin activity compared with healthy stem tissues. Three active compounds, chromatographically similar to zeatin, zeatinriboside and N6(DELTA 2-isopentenyl)-adenine are present in both healthy and infected stems. Tumour tissues contain an additional cytokinin which is not present in traceable quantities in extracts from healthy stems. The total cytokinin activity in extracts from leafy gall tissues was much greater than that in extracts prepared from healthy stem tissues.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators; plants; Pelargonium; Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta
CT RHODOCOCCUS FASCIANS; cytokinins; ornamental plants; plant pathology
ORGN Pelargonium zonale

L1 ANSWER 95 OF 284 CABA COPYRIGHT 2001 CABI
AN 75:53432 CABA
DN 740813837
TI Chrysanthemum eelworm as a parasite of strawberry in southern Ukraine
AU Lebedeva, M. E.; Metlitskii, O. Z.; Drozdovskii, E. M.
CS Research Inst. for Horticulture of the non-Chernozem Zone, near Moscow, USSR.
SO (1972) pp. 446-450.
Publisher: "Kolos". Moscow
Meeting Info.: Kul'tura zemlyaniki v SSSR. Doklady simpoziuma, (28 iyunya - 1 iyulya 1971).
CY USSR
DT Miscellaneous
LA Russian
AB Aphelenchoides ritzemabosi was present on strawberry plantations in southern Ukraine, USSR. The symptoms caused by this nematode together with **Corynebacterium fascians** on strawberry are described.
Due to infection, average yield losses of the strawberry variety Korallovaya 100 were estimated as 53.4%. The variety Yasna seems to be somewhat less susceptible to A. ritzemabosi than Korallovaya 100 or Muto.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USSR; USSR in Europe
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Nematoda; invertebrates; animals; Aphelenchoides; Aphelenchoididae; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants; Central Europe; Europe
CT strawberries; LOSSES; incidence; resistance; RHODOCOCCUS FASCIANS; pathology; plant parasitic nematodes; plant nematology; nematology
ST resistant varieties
ORGN Aphelenchoides ritzemabosi; Fragaria

L1 ANSWER 96 OF 284 CABA COPYRIGHT 2001 CABI
AN 75:13874 CABA
DN 750330848

TI Crown gall and leafy gall
CS UK, Ministry of Agriculture, Fisheries and Food; Agricultural Development and Advisory Service, Harpenden, UK.
SO Advisory Leaflet, (1974) No. 253, pp. 5. 4 pl.
DT Miscellaneous
LA English
AB Crown gall, caused by Agrobacterium radiobacter var. tumefaciens, may occur on the roots and stems of many woody or ornamental plants, including fruit trees (nurseries), soft fruit, marguerite daisies (Chrysanthemum frutescens) and Manetti rose rootstocks. The damage caused is described, and precautions against infection are outlined. Leafy gall, caused by **Corynebacterium fascians**, is characterized by the presence of a large number of short shoots. Many ornamental plants are liable to be infected, and especially chrysanthemums, dahlias and sweet peas. The importance of nursery hygiene is emphasized.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT UK
BT plants; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; trees; woody plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Rosaceae; Rosales; Lathyrus; Leguminosae; Fabales; British Isles; Western Europe; Europe
CT fruit crops; roses; diseases; ornamental plants; sweet peas; RHODOCOCCUS FASCIANS; small fruits; fruit trees
ST Agrobacterium radiobacter var. tumefaciens; frutescens
ORGN chrysanthemum; dahlia; Rosa; Lathyrus odoratus

L1 ANSWER 97 OF 284 CABA COPYRIGHT 2001 CABI
AN 75:12695 CABA
DN 750328790
TI How geranium cuttings free from bacterial disease are produced at the Societe Horticole de Philiomel
Comment s'effectue la production des boutures de geranium, indemnes de bacterioses, a la Societe Horticole de Philiomel
AU Angiboust, A.
CS Philiomel Horticulture S.A., Salses, France.
SO Pepinieristes Horticulteurs Maraichers, (1975) No. 154, pp. 51-58. 9 pl.
DT Journal
LA French
AB A review and discussion of the methods used to produce cuttings of Pelargonium zonale, P. peltatum and P. grandiflorum free of Agrobacterium tumefaciens, **Corynebacterium fascians** and Xanthomonas pelargonii. The fluorescence test is used in the laboratory to detect bacterial infection. Mother-plants are regularly renewed and screened, and to avoid the contamination of cuttings all implements, materials and workers' protective clothing are regularly disinfected.
CC FF160 Plant Propagation; HH000 Pathogen, Pest and Parasite Management (General)
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms; Agrobacterium; Rhizobiaceae; Gracilicutes; Western Europe; Europe; Mediterranean Countries
CT diseases; RHODOCOCCUS FASCIANS; cuttings; disease control; ornamental plants; ornamental herbaceous plants
ST Xanthomonas pelargonii
ORGN pelargonium; Agrobacterium tumefaciens

L1 ANSWER 98 OF 284 CABA COPYRIGHT 2001 CABI
AN 74:51677 CABA

DN 731306517
TI Production of D-alanine by **Corynebacterium fascians**
AU Yamada, S.; Maeshima, H.; Wada, M.; Chibata, I.
CS Tanabe Seiyaku Co., Osaka, Japan.
SO Applied Microbiology, (1973) Vol. 25, No. 4, pp. 636-640. 1 graph, 7 tab.
DT Journal
LA English
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; physiology; plant pathogenic bacteria; plant pathology
ORGN bacteria

L1 ANSWER 99 OF 284 CABA COPYRIGHT 2001 CABI
AN 74:48623 CABA
DN 740810749
TI Methods of detecting Aphelenchoides fragariae-**Corynebacterium fascians** infection in strawberry fields
AU Matveeva, M. A.; Yakubovich, T. N.
SO Materialy Nauchnykh Issledovanii Chlenov Vsesoyuznogo Obshchestva Gel'mintologov, 1970-1971, (1972) No. 24, pp. 103-109.
DT Journal
LA Russian
AB Ways of assessing the effect of Aphelenchoides fragariae/ **Corynebacterium fascians** infection on strawberries growing in the Moscow region (USSR) were studied. The parent plant plus its peripheral offshoots were considered as a single entity, the age of which was taken as the average of that of all its members. A bed was divided into rectangular units (30 X 50 cm). Any unit containing one or more diseased plants was classified as diseased. The crop yield from diseased units was 28.6 to 38.0% lower than from healthy ones. Graphical analysis showed the incidence of infection amongst plants established for 3 to 4 years to be three to seven times higher than for those established for shorter periods. To determine the numbers of foci of infection, one diseased unit amongst healthy ones in a row or a group of adjacent diseased units were classified as foci. Amongst plants established for 5 to 6 years there were more than twice as many foci as amongst those established for 2 to 3 years.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USSR
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Nematoda; invertebrates; animals; Aphelenchoides; Aphelenchoididae; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants
CT RHODOCOCCUS FASCIANS; strawberries; pathogenicity; interactions; plant parasitic nematodes; plant nematology; nematology
ORGN Aphelenchoides fragariae; Fragaria

L1 ANSWER 100 OF 284 CABA COPYRIGHT 2001 CABI
AN 74:8064 CABA
DN 730312892
TI The importance of bacterial injury in chrysanthemum growing
Importance des degats d'origine bacterienne dans les cultures de chrysanthemes
AU Lemattre, M.
CS Centre National de la Recherche Agronomique, Versailles, France.
SO Journee d'Etude sur le Chrysantheme, Paris, 1971, pp. 61-74. 14 pl. 7 ref.
DT Miscellaneous
LA French

AB Short descriptions of symptoms induced by Pseudomonas cichorii, Agrobacterium tumefaciens, **Corynebacterium fascians** and Erwinia chrysanthemi, together with indexing prodedures and control measures.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Pseudomonas; Pseudomonadaceae; Gracilicutes; Agrobacterium; Rhizobiaceae; Erwinia; Enterobacteriaceae; Western Europe; Europe; Mediterranean Countries
CT RHODOCOCCUS FASCIANS; ornamental plants; ornamental herbaceous plants
ST chrysanthemum diseases
ORGN Pseudomonas cichorii; Agrobacterium tumefaciens; Erwinia chrysanthemi

L1 ANSWER 101 OF 284 CABA COPYRIGHT 2001 CABI
AN 74:6923 CABA
DN 730311117
TI Infectious wilt of strawberry
AU Kulikova, M. T.
CS Kazakhskii Sel'skokhozyaistvennyi Institut, Kazakh SSR.
SO Zashchita Rastenii, (1973) No. 6, pp. 40.
DT Journal
LA Russian
AB In the Alma-Ata region a wilt which caused leaf deformation, stem and petiole thickening and premature development of axillary buds was attributed not to **Corynebacterium fascians**, but to Fusarium oxysporum and Verticillium dahliae.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT USSR
BT Fusarium; Deuteromycotina; Eumycota; fungi; Verticillium
CT symptoms; small fruits; fruit crops
ST strawberry diseases
ORGN Fusarium oxysporum; Verticillium dahliae

L1 ANSWER 102 OF 284 CABA COPYRIGHT 2001 CABI
AN 73:89388 CABA
DN 731608504
TI In vitro culture as a technique for approaching some problems posed by plant breeding
Les cultures in vitro en tant que technique pour l'approche de problemes poses par l'amelioration des plantes
AU Nozeran, R.; Bancilhon, L.
CS Laboratoire de Morphologie vegetale experimentale, associe au CNRS, Universite Paris-Sud, France.
SO Annales de l'Amelioration des Plantes, (1972) Vol. 22, No. 2, pp. 167-185. 108 ref.
DT Journal
LA French
SL English
AB The in vitro culture of cells and tissues is considered of great use as a method for vegetative propagation, production of mutants, variants and haploids, investigation of host-parasite relations and propagation of virus-free plants. Numerous examples cited throughout the review emphasize the practical importance of such methods for plant improvement. Examples include the propagation of Vitis and Citrus by stem cuttings; culture of embryos from dormant seeds of Panicum maximum; interspecific hybrids of Linum and intergeneric hybrids of the Solanaceae; production of branch mutants in coffee; culture of anthers for haploidy in Nicotiana, Oryza and Brassica; and investigation of Pisum sativum infected with

Corynebacterium fascians.
CC FF020 Plant Breeding and Genetics
GT France
BT Western Europe; Europe; Mediterranean Countries
CT tissue culture; anther culture; vegetative propagation; haploidy; cereals

L1 ANSWER 103 OF 284 CABA COPYRIGHT 2001 CABI
AN 73:69060 CABA
DN 721300460
TI Concerning the presence of the cytokinin, N6-(DELTA 2-isopentenyl) adenine, in cultures of **Corynebacterium fascians**
AU Rathbone, M. P.; Hall, R. H.
CS McMaster Univ., Hamilton, Ont., Canada.
SO Planta, (1972) Vol. 108, No. 2, pp. 93-102. 2 graphs.
ISSN: 0032-0935
DT Journal
LA English
AB This compound is a potent cytokinin present in cultures of C. fascians although it represents only a small part of the total cytokinin activity.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; plant pathogenic bacteria; plant pathology
ST cytokinin activity
ORGN bacteria

L1 ANSWER 104 OF 284 CABA COPYRIGHT 2001 CABI
AN 73:27318 CABA
DN 720304918
TI Breeding, variety studies and cultural practices in top and small fruit crops. Vol. V
Selektsiya, sortoizuchenie, agrotekhnika plodovykh i yagodnykh kul'tur, Tom V
AU Semakin, V. P.; Sedov, E. N. : Mikheeva, M. V.; Zhdanov, V. N.; Sedova, Z. A.; Maksimova, T. N.; Maslov, S. P.; Shorokhov, S. S.; Rudenko, K. N.; Kolesnikova, A. F.; Kolesnikov, A. I.; Grevtseva, E. I.; Blinov, V. A.; Blinova, E. E.
CS USSR, Orlovskaya Plodovo-Yagodnaya Opytnaya Stantsiya
SO Selektsiya, sortoizuchenie, agrotekhnika plodovykh i yagodnykh kul'tur, Tom V, (1971) pp. 262. pl. many ref.
Orel, Priokskoe Knizhnoe Izdatel'stvo
Price: 1.41 r.
DT Miscellaneous
LA Russian
AB This 5th volume of collected papers [for earlier vols see HcA 41, 5485 and 42, 193] from the Orel Fruit Experiment Station includes: On the possibilities of increasing the output of induced gamma-mutation apple tree varieties (pp. 3-17, 13 ref.), by V.P. Semakin; Breeding apples for winter hardiness (pp. 34-60, 73 ref.), by E.N. Sedov; Breeding apples for restrained tree growth in height (pp. 61-76, 15 ref.), by E.N. Sedov and M.V. Mikheeva; The effect of gibberellin on berry set in black currants (pp. 122-127, 5 ref,), by V.N. Zhdanov; Weight losses in apples in relation to variety and storage conditions (pp. 134-141, 15 ref.), by Z.A. Sedova and T.N. Maksimova; The effect of the depth of pre-planting ploughing on the growth and productivity of apples (pp. 160-162, 6 ref.), by S.P. Maslov, S.S. Shorokhov and K.N. Rudenko; The growth and productivity of apples with grassing down (pp. 163-174, 19 ref.), by S.P. Maslov and S.S. Shorokhov; Frost damage to the root system and tree recovery of sour cherries (pp. 204-221, 40 ref.), by A.F. Kolesnikova and A.I. Kolesnikov; Biological characteristics of the causal agent of shot

hole [Clasterosporium carpophilum] in stone fruits and conditions for disease development (pp. 222-231, 22 ref.), by E.I. Grevtseva; A disease of strawberries caused by Aphelenchoides fragariae and **Corynebacterium fascians** (pp. 232-239, 10 ref.), by V.A. Blinov; and Correction of apple yield data by mathematical methods (pp. 240-252, 10 ref.), by E.E. Blinova.

CC FF100 Plant Production; FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT USSR

BT gibberellins; plant growth regulators; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; arthropods; invertebrates; animals; pests; Aphelenchoides; Aphelenchoididae; Nematoda; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants; Ribes; Grossulariaceae; Stigmina; Deuteromycotina; Eumycota; fungi

CT gibberellic acid; apples; irradiation; gamma radiation; breeding; cold resistance; set; GROWTH REGULATORS; fruit; black currants; storage; cultivation; depth; cover crops; grass sward; cherries; frost; injuries; roots; recovery; stone fruits; diseases; RHODOCOCCUS FASCIANS; yields; STATISTICAL ANALYSIS; arthropod pests; small fruits; fruit crops; plant growth regulators; selection; strawberries

ST mutation induction; dwarf forms; black currant fruit; blackcurrant growth substances; weight loss; varietal behaviour; apple varieties; storage behaviour; apple soil; Clasterosporium carpophilum; strawberry diseases; nematode complex; correlations; bacteria complex

RN 77-06-5

ORGN Aphelenchoides fragariae; Malus; Ribes nigrum; Prunus; Fragaria; STIGMINA CARPOPHILA

L1 ANSWER 105 OF 284 CAPLUS COPYRIGHT 2001 ACS

AN 1997:172451 CAPLUS

DN 126:185884

TI Preparation of 1-benzyloxy-3-chloro-2-propanol

IN Yanase, Eiji; Iwasaki, Fumiaki

PA Tokuyama Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07C069-96
ICS C12P007-22; C12R001-365; C12R001-01; C12R001-05; C12R001-025; C12R001-07; C12R001-125; C12R001-09; C12R001-13; C12R001-15; C12R001-20; C12R001-265; C12R001-37; C12R001-39; C12R001-38; C12R001-425; C12R001-64; C12R001-73; C12R001-72

CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 16

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09020726	A2	19970121	JP 1995-167649	19950703

OS MARPAT 126:185884

AB 1-Benzyloxy-3-chloro-2-propanol (I) was prepd. by hydrolysis of PhCH2OCH2CH(OCO2R)CH2Cl (II) [R = alkyl]. Thus, addn. of II [R = methyl] to Nocardia erythropolis IAM 1494 in a phosphate buffer soln. gave racemic I in 92.2% yield. In other examples, optically active I was obtained.

ST benzyloxychloropropanol prepn; microbial hydrolysis
benzyloxychloroalkoxycarbonyloxypropane

IT Achromobacter polymorph
Acinetobacter calcoaceticus
Aureobacterium esteraromaticum

Bacillus sphaericus
Bacillus subtilis
Bacillus subtilis natto
Candida kefyr
Candida maltosa
Candida solani
Chromobacterium iodinum
Corynebacterium ammoniagenes
Corynebacterium equi
Corynebacterium fascians
Corynebacterium glutamicum
Gordona rubropertinctus
Micrococcus rubens
Nocardia erythropolis
Pseudomonas fluorescens
Pseudomonas stutzeri
Rhodococcus equi
Rhodococcus erythropolis
Rhodococcus terrae
Sporidiobolus johnsonii
Trichosporon cutaneum
Williopsis californica
Yarrowia lipolytica
(prepn. of benzyloxychloropropanol by microbial hydrolysis of benzyloxychloroalkoxycarbonyloxypropane)

IT 126575-79-9P 128572-86-1P
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(prepn. of benzyloxychloropropanol)

IT 187105-48-2P 187105-49-3P 187105-50-6P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of benzyloxychloropropanol)

IT 79-22-1, Methyl chlorocarbonate 108-23-6, Isopropyl chlorocarbonate 541-41-3, Ethyl chlorocarbonate
RL: RCT (Reactant)
(prepn. of benzyloxychloropropanol)

L1 ANSWER 106 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1997:66886 CAPLUS
DN 126:221177
TI Characteristics of a PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii
AU Sulzinski, M. A.; Moorman, G. W.; Schlagnhaufer, B.; Romaine, C. P.
CS Department Biology, University Scranton, Scranton, PA, 18510, USA
SO J. Phytopathol. (1996), 144(7-8), 393-398
CODEN: JPHYEB; ISSN: 0931-1785
PB Blackwell
DT Journal
LA English
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10, 11
AB Polymerase chain reaction (PCR) amplification was carried out with a primer pair targeting a sequence in the genome of X. campestris pv. pelargonii. PCR amplification with the primer pair XcpM1/XcpM2 using total nucleic acid prepns. from 22 geog.-diverse isolates of X. campestris pv. pelargonii generated a major 197 bp DNA product. In contrast, no major amplification products were consistently generated from 12 other pathovars of X. campestris or from 19 isolates representing 10 different pathogens of geraniums, **Corynebacterium fascians** and

Pseudomonas cichorii. After PCR using this primer pair, between 1,380 and 13,800 copies of the X. campestris pv. pelargonii bacterial DNA target as template were detected by ethidium bromide staining of agarose gels and between 13.8 and 138 copies by blot hybridization to a pathovar-specific biotinylated probe. Between 630 and 6,300 colony-forming units (CFU) of X. campestris pv. pelargonii were detected after ethidium bromide staining of agarose gels and between 63 and 630 CFU after blot hybridization. The PCR-based assay was used to identify X. campestris pv. pelargonii in diseased geraniums, whereas discrete amplification products were not obtained with healthy plants.

ST PCR DNA Xanthomonas geranium

IT PCR (polymerase chain reaction)
Xanthomonas campestris pelargonii
(PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

IT Pelargonium hortorum
(disease, blight; of XcpM1/XcpM2 amplicon in a PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

IT DNA sequences
(of XcpM1/XcpM2 amplicon in PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

IT 188204-33-3
RL: ANT (Analyte); ANST (Analytical study)
(nucleotide sequence; DNA sequence of XcpM1/XcpM2 amplicon in a PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

IT 188205-67-6
RL: AGR (Agricultural use); ARG (Analytical reagent use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(primer XcpM1; PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

IT 188205-68-7
RL: AGR (Agricultural use); ARG (Analytical reagent use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(primer XcpM2; PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii)

L1 ANSWER 107 OF 284 CAPLUS COPYRIGHT 2001 ACS

AN 1994:428173 CAPLUS
DN 121:28173

TI Cloning and sequence determination of the gene coding for the elongation factor Tu of Mycobacterium leprae

AU Dhandayuthapani, Subramanian; Banu, Mohammed Jameela; Kashiwabara, Yoshiko
CS Natl. Inst. Leprosy Res., Higashimurayama, 189, Japan

SO J. Biochem. (Tokyo) (1994), 115(4), 664-9
CODEN: JOBIAO; ISSN: 0021-924X
DT Journal
LA English
CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 6, 10

AB Elongation factor Tu (EF-Tu) plays an important role in protein biosynthesis and is susceptible to antibiotics in prokaryotes like Escherichia coli. In order to understand the primary structure of EF-Tu in the intracellular pathogenic bacterium M. leprae, the gene (tuf gene) coding for this protein was cloned and sequenced. The gene contains a coding region of 1,188 bp with GUG as start codon. The deduced amino acid sequence has 396 amino acids with a mol. wt. of 43.6 kDa. Putative GRP-binding sites are located at amino acid positions 19-24, 83-87, and 138-141. Comparison of M. leprae EF-Tu amino acid sequence with those of M.tuberculosis, Micrococcus luteus, E. coli, and Salmonella typhimurium

reveals 74-95% homol. Mitochondrial EF-Tu of Saccharomyces cerevisiae (62%) and chloroplast EF-Tu of Arabidopsis thaliana (65.6%) also show strong homol. with that of M. eprae. In contrast, the EF-Tu of the archaebacterium Halobacterium marismoruti exhibits relatively less homol. (36.7%). Southern hybridization of M.leprae tuf gene with genomic DNA of slow growing and fast growing mycobacteria and related species like **Corynebacterium fascians** and Nocardia asteroides suggests that the gene is highly conserved in these organisms.

ST Mycobacterium elongation factor tuf gene sequence; Tu elongation factor tuf gene Mycobacterium; conservation Tu elongation factor gene Mycobacterium

IT Mycobacterium leprae
(Tu elongation factor tuf gene of, sequence of)

IT Deoxyribonucleic acid sequences
(of Tu elongation factor tuf gene, of Mycobacterium leprae)

IT Protein sequences
(of tuf gene Tu elongation factor, of Mycobacterium leprae)

IT Gene, microbial
RL: PROC (Process)
(tuf, for Tu elongation factor, of Mycobacterium leprae, sequence and high conservation of)

IT 155980-64-6, Tu elongation factor (Mycobacterium leprae strain Hawaiin clone pEFT gene tuf)
RL: PRP (Properties)
(amino acid sequence and guanine binding sites of)

IT 152283-63-1
RL: PROC (Process)
(nucleotide sequence and high conservation of)

L1 ANSWER 108 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1994:47397 CAPLUS
DN 120:47397
TI Detection of insertion elements and transposons in Coryneform bacteria
IN Schaefer, Andreas; Seep-Feldhaus, Anna Hildegard; Jaeger, Wolfgang; Kalinowski, Joern; Wohlleben, Wolfgang; Puehler, Alfred
PA Degussa AG, Germany
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C12N015-77
ICS C12Q001-68; C12N015-11; C12N001-21; G01N033-68
ICI C12Q001-68, C12R001-15, C12R001-13; C12N015-11, C12R001-15, C12R001-13; C12N001-21, C12R001-15, C12R001-19
CC 3-5 (Biochemical Genetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4208785	A1	19930923	DE 1992-4208785	19920319
	EP 563527	A1	19931006	EP 1993-101279	19930128
	EP 563527	B1	19960313		
	R: BE, DE, FR, GB, IT				
	JP 06046867	A2	19940222	JP 1993-58443	19930318
	JP 2944841	B2	19990906		
	US 5380657	A	19950110	US 1993-33320	19930318
	US 5633154	A	19970527	US 1994-336069	19941104
PRAI	DE 1992-4208785		19920319		
	US 1993-33320		19930318		

AB A method of detecting and trapping mobile genetic elements endogenous in Corynebacteria is described. The method is useful in the development of

Corynebacterium expression hosts (no data). The method uses a mobilisable plasmid carrying the Bacillus subtilis sacB gene. High-level expression of the gene in Gram-neg. bacteria is lethal, so inactive mutants can be selected for by their growth in a medium contg. >5% sucrose.

ST transposon insertion element Corynebacterium detection

IT Microbial conjugation
(between Escherichia coli and Corynebacterium, with mobilisable plasmid, in detection of mobile genetic elements in Corynebacterium)

IT Gene, microbial
RL: BIOL (Biological study)
(lysI, spontaneous mutant of, in Corynebacterium glutamicum, due to insertion sequence)

IT Brevibacterium flavum
Brevibacterium lactofermentum
Corynebacterium
Corynebacterium fascians
Corynebacterium glutamicum
Corynebacterium herculis
(mobile genetic elements in, detection of, plasmid for)

IT Plasmid and Episome
(mobilisable, for identification of mobile genetic elements in Corynebacterium)

IT Genetic element
RL: BIOL (Biological study)
(mobilisation site, in mobilisable plasmid for identification of mobile genetic elements in Corynebacterium)

IT Deoxyribonucleic acid sequences
(of insertion sequence of ISCg1 of Corynebacterium glutamicum)

IT Protein sequences
(of open reading frame-derived proteins of insertion sequence ISCg1 of Corynebacterium glutamicum)

IT Plasmid and Episome
(pWJ5, sacB gene of Bacillus subtilis on, for detection of mobile genetic elements in Corynebacter)

IT Mutation
(insertion, in Corynebacterium, mobile genetic elements for, cloning of)

IT Genetic element
RL: BIOL (Biological study)
(insertion sequence, ISCg1, of Corynebacterium, detection of, plasmid for)

IT Genetic element
RL: BIOL (Biological study)
(insertion sequence, ISRF1, of **Corynebacterium fascians**, detection of, plasmid for)

IT Genetic element
RL: PROC (Process)
(insertion sequence, in Corynebacterium, detection of, plasmid for)

IT Mutation
(insertion, spontaneous, in Corynebacterium, mobile genetic elements in)

IT Genetic element
RL: BIOL (Biological study)
(ori, in mobilisable plasmid for identification of mobile genetic elements in Corynebacterium)

IT Genetic element
RL: BIOL (Biological study)
(oriT, in mobilisable plasmid for identification of mobile genetic elements in Corynebacterium)

IT Gene, microbial

AU Eason, Jocelyn R.; Jameson, Paula E.
CS Bot. Dep., Univ. Otago, Dunedin, N. Z.
SO Curr. Plant Sci. Biotechnol. Agric. (1992), 13(Prog. Plant Growth Regul.), 511-16
CODEN: CPBAE2; ISSN: 0924-1949
DT Journal
LA English
CC 10-6 (Microbial, Algal, and Fungal Biochemistry)
AB The relationship between cytokinin prodn. and virulence was reinvestigated using immunoaffinity purifn., HPLC sepn., and quantitation by RIA of cytokinins.
ST Corynebacterium cytokinin formation virulence
IT **Corynebacterium fascians**
(cytokinin formation by, virulence correlation with)
IT Microbial virulence
(of **Corynebacterium fascians**, cytokinin formation correlation with)
IT Plant hormones and regulators
RL: FORM (Formation, nonpreparative)
(cytokinins, formation of, by **Corynebacterium fascians**, virulence relation with)

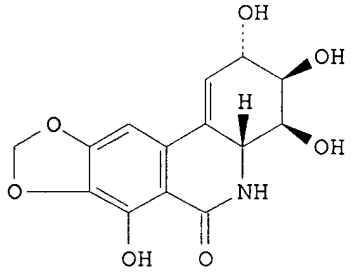
L1 ANSWER 111 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1991:628075 CAPLUS
DN 115:228075
TI Neither indoleacetic acid nor bacteriocin is apparently involved in the in vitro antagonism between the virulent and the avirulent strains of Pseudomonas solanacearum
AU Wagih, Elsayed E.
CS Coll. Agric., Univ. Alexandria, Alexandria, Egypt
SO J. Phytopathol. (1991), 132(2), 153-60
CODEN: JPHYEB; ISSN: 0931-1785
DT Journal
LA English
CC 10-3 (Microbial Biochemistry)
AB An avirulent strain of P. solanacearum could inhibit the growth of its virulent parent on L-tryptophan-contg. glycerol nutrient agar (TGNA) medium. It was, also, capable of inhibiting, though to a less degree, **Corynebacterium fascians** and Pseudomonas marginata, out of five other bacterial species tested. While P. marginata was partially inhibited by the avirulent strain it was totally insensitive to indole-3-acetic acid (IAA) up to a concn. of 300 .mu.g/mL. Addnl., Erwinia carotovora var atroseptica, which was totally unaffected by the avirulent strain, showed a spectrum of sensitivity to IAA concns. close to that of the virulent strain. No DNA, RNA, or IAA could be detected in the inhibition area and, thus, it is almost certain that the inhibiting agent produced by the avirulent strain is not IAA as was previously speculated. This inhibiting agent was insensitive to autoclaving and to the enzymes, pronase, trypsin, DNAse, and RNAse. P. solanacearum bacteriocin was detected by PAGE in the medium near the avirulent growth line but not throughout the inhibition area. This supports the conclusion that bacteriocin alone cannot be held responsible for the inhibition phenomenon obsd. and the nature of this inhibiting agent remains unknown.
ST Pseudomonas virulent avirulent antagonism indoleacetate; bacteriocin Pseudomonas growth inhibition
IT Pseudomonas solanacearum
(growth antagonism of avirulent and virulent strains of, bacteriocin and indoleacetate in relation to)
IT **Corynebacterium fascians**
Pseudomonas marginata

(growth antagonism of, by avirulent Pseudomonas solanacearum strain, bacteriocin and indoleacetate in relation to)

IT Bacteriocins
RL: BIOL (Biological study)
(of Pseudomonas solanacearum avirulent strain, growth inhibition of virulent strain in relation to)

IT 87-51-4, Indole acetic acid, biological studies
RL: BIOL (Biological study)
(growth antagonism of Pseudomonas solanacearum avirulent and virulent strains in relation to)

L1 ANSWER 112 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1991:589549 CAPLUS
DN 115:189549
TI Narciclasine: proton and carbon-13 NMR data and a new improved method of preparation
AU Evidente, A.
CS Dip. Sci. Chim.-Agrar., Univ. Napoli "Federico II", Portici, I-80055, Italy
SO Planta Med. (1991), 57(3), 293-5
CODEN: PLMEAA; ISSN: 0032-0943
DT Journal
LA English
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1, 11, 31
GI



I

AB Narciclasine (I), a well known, nonbasic metabolite occurring in some Amaryllidaceae species, possesses an interesting antimitotic activity. It is structurally related to lycorine, the main amaryllidaceae alkaloid, and it exhibits a surprisingly higher activity than lycorine and several of its synthetic and natural analogs in the inhibition of ascorbic acid biosynthesis in potato tuber slices. A previous study on lycorine structure-activity relationships showed that narciclasine had a very strong antibiotic activity when assayed on **Corynebacterium fascians**.

ST narciclasine Sternbergia extn NMR

IT Sternbergia lutea
(narciclasine of, proton and carbon-13-NMR spectra of)

IT Nuclear magnetic resonance
(of narciclasine, of Sternbergia lutea, proton and carbon-13)

IT 1333-74-0 14762-74-4
RL: BIOL (Biological study)
(nuclear magnetic resonance, of narciclasine, of Sternbergia lutea,

TI No transfer of leafy gall disease in lilies propagated by tissue culture
Geen overdracht van woekerziekte in lelies door vermeerdering via weefselkweekmethode
AU Aartrijk, J. van; Blom-Barnhoorn, G. J.
CS Laboratorium voor Bloembollenonderzoek, Lisse, Netherlands.
SO Bloembollencultuur, (1982) Vol. 92, No. 38, pp. 1012. 1 pl.
ISSN: 0165-6406
DT Journal
LA Dutch
AB In trials with cv. Enchantment, there was no carry-over of **Corynebacterium fascians**.
CC FF170 in vitro Culture of Plant Material; ZZ900 Techniques and Methodology
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Liliaceae; Liliales; monocotyledons; angiosperms
CT tissue culture; propagation; techniques; diseases; RHODOCOCCUS FASCIANS; ornamental plants; ornamental bulbs
ORGN Lilium

L1 ANSWER 61 OF 284 CABA COPYRIGHT 2001 CABI
AN 82:72968 CABA
DN 821385873
TI Seed borne bacterial tumors in tobacco
AU Misra, A.; Jha, V.; Jha, S.; Sharma, B. P.; Lozano, J. C. [EDITOR]
CS L.N. Mithila Univ., Darbhanga, India.
SO (1982) pp. 210-212. 1 fig., 1 tab. 5 ref.
Publisher: Centro Internacional de Agricultura Tropical. Cali
Meeting Info.: Proceedings of the Fifth International Conference on Plant Pathogenic Bacteria.
CY Colombia
DT Miscellaneous
LA English
AB Thick green stem tumours were caused by **Corynebacterium fascians**. Seed transmission was confirmed and bacterial colonies were seen on the seed surface.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Spermatophyta; plants; Solanaceae; Solanales; dicotyledons; angiosperms
CT seedborne organisms; RHODOCOCCUS FASCIANS; tobacco; plant pathogenic bacteria; stimulant plants; plant pathology
ST seed-borne; stem tumours
ORGN bacteria; Nicotiana

L1 ANSWER 62 OF 284 CABA COPYRIGHT 2001 CABI
AN 82:71309 CABA
DN 821383758
TI Relationships between growth and pathogenicity of **Corynebacterium fascians** (Tilford) Dowson
Relations entre la croissance et le pouvoir pathogene chez **Corynebacterium fascians** (Tilford) Dowson
AU Rivain, J.-G.; Roussaux, J.
CS Lab. Pl. Biol., Univ. Pierre et Marie Curie, Paris, France.
SO Agronomie, (1982) Vol. 2, No. 5, pp. 479-485. 8 fig., 4 tab. 20 ref.
ISSN: 0249-5627
DT Journal
LA French
SL English
AB All strs. studied had simple and identical nutritional requirements in vitro but some differences between those pathogenic and non-pathogenic to

pas commandé

L1 ANSWER 33 OF 284 AGRICOLA
AN 75:75833 AGRICOLA
DN 75-9076868
TI Factors affecting epidemiology of bacterial [**Corynebacterium fascians**] fasciation of Chrysanthemum maximum
AU Oduro, K A
AV DNAL (464.8 P56)
SO Phytopathology, June 1975 Vol. 65, No. 6, pp. 719-721.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 34 OF 284 AGRICOLA
AN 75:61641 AGRICOLA
DN 75-9062611
TI Crown gall [Agrobacterium radiobacter tumefaciens] and leafy gall [**Corynebacterium fascians**]
AV DNAL (10 G79LA)
SO Advis Leafl Minist Agric Fish Food (Edinb), 1974 Vol. 253, Rev., 5 p.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 35 OF 284 AGRICOLA
AN 75:44109 AGRICOLA
DN 75-9044913
TI Altered levels of indoleacetic acid and cytokinin in geranium stems infected with **Corynebacterium fascians**
AU Balazs, E; Sziraki, I
AV DNAL (SB731.A3)
SO Acta Phytopathol, 1974 Vol. 9, No. 3/4, pp. 287-292. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)
RN 87-51-4Q, 32536-43-9Q (INDOLEACETIC ACID)

L1 ANSWER 36 OF 284 AGRICOLA
AN 72:109981 AGRICOLA
DN 72-9110413
TI Concerning the presence of the cytokinin. N6-(Delta2-isopentenyl) adenine, in cultures of **Corynebacterium fascians**, [fasciation disease, plants]
AU Rathbone, M P; Hall, R H
AV DNAL (450 P693)
SO Planta, 1972 Vol. 108, No. 2, pp. 95-102.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 37 OF 284 AGRICOLA
AN 72:107710 AGRICOLA
DN 72-9108138
TI Bacterial diseases of pelargoniums in our gardens. [Xanthomonas pelargonii, **Corynebacterium fascians**]
La bacteriose chex les pelazgoniums de nos jardins
AU Metron, R
AV DNAL (QH3.S37)
SO Sci Nat, July/Aug 1972 No. 112, pp. 33-36.
DT Journal; Article
LA French

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 38 OF 284 AGRICOLA
AN 70:9885 AGRICOLA
DN 70-9009970
TI Pathogenic activity of various strains of **Corynebacterium fascians** (Tilf.) Dow
AU Chekunova, L N
AV DNAL (442.9 M854)
SO Moscow Univ Vestnik Ser 6 Biol Pochvoved, 1969 No. 1, pp. 117-119.
DT Journal; Article
LA Russian
CC 70 Plant Science (1970-71)

L1 ANSWER 39 OF 284 CABA COPYRIGHT 2001 CABI
AN 1998:81107 CABA
DN 980607437
TI Fasciation in Casuarina equisetifolia
AU Prasad, N. S.; Rao, A. R.; Rao, G. M.
CS Regional Forest Research Centre, Rajahmundry (Andhra Pradesh), India.
SO Indian Forester, (1997) Vol. 123, No. 8, pp. 773-774. 1 ref.
ISSN: 0019-4816
DT Journal
LA English
AB Fasciation (a malformation resulting in an enlarged and flattened stem) was observed in several provenances of C. equisetifolia during trials in Andhra Pradesh in 1996. The stems which developed were short, thick and 20-25 cm tall. The fasciated growth was 10-15 cm long, not extending beyond 20 cm [height], and the stems had nodes, internodes and needles, and were of a normal green colour. The malformation has been shown to be caused by **Corynebacterium fascians** in several other (flower) species, but treatment with oxytetracycline in 1997 made no difference to the symptoms observed.
CC KK100 Forestry (General); KK600 Agroforestry; FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH400 Control by Chemicals and Drugs; FF020 Plant Breeding and Genetics
GT India; Andhra Pradesh
BT Casuarina; Casuarinaceae; Casuarinales; dicotyledons; angiosperms; Spermatophyta; plants; South Asia; Asia; Commonwealth of Nations; Developing Countries; India
CT fasciation; forest trees; multipurpose trees; stems; abnormal development; plant diseases; bacterial diseases; plant pathogenic bacteria; plant pathogens; plant disease control; antibiotics; chemical control; oxytetracycline; provenance trials
RN 79-57-2
ORGN Casuarina equisetifolia

L1 ANSWER 40 OF 284 CABA COPYRIGHT 2001 CABI
AN 97:128885 CABA
DN 971006570
TI A simple DNA extraction method for PCR-based detection of Xanthomonas campestris pv. pelargonii in geraniums
AU Sulzinski, M. A.; Moorman, G. W.; Schlagnhaufer, B.; Romaine, C. P.
CS Department of Biology, University of Scranton, Scranton, PA 18510, USA.
SO Journal of Phytopathology, (1997) Vol. 145, No. 5/6, pp. 213-215. 5 ref.
ISSN: 0931-1785
DT Journal
LA English
SL German
AB A simple method for PCR-based plant clinical diagnosis of bacterial blight

of geraniums caused by X. campestris pv. pelargonii [X. hortorum pv. pelargonii] is described. The method entails maceration of infected tissues in water or 10 mM Tris-HCl, pH 8.0 buffer, followed by treatment of the macerate with a commercially-available extraction matrix (GeneReleaserTM) in which nucleic acid is released by brief microwave heating. Nucleic acid prepared in this manner served directly as template for PCR amplification with primers targeting a sequence in the genome of the bacterium. Using this protocol, it was possible to quickly identify X. hortorum pv. pelargonii in infected geraniums, whereas amplification products were not obtained with nucleic acid preparations from non-infected plants, or from plants infected with **Corynebacterium fascians** [Rhodococcus fascians] or Pseudomonas cichorii.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; WW000 Biotechnology; ZZ900 Techniques and Methodology

BT Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; plants; prokaryotes

CT plant diseases; plant pathogens; plant pathogenic bacteria; dna; extraction; detection; molecular genetics; polymerase chain reaction; ornamental plants; plant pathology

ST Xanthomonas hortorum pv. pelargonii

ORGN Pelargonium; bacteria

L1 ANSWER 41 OF 284 CABA COPYRIGHT 2001 CABI

AN 97:36540 CABA

DN 971001460

TI Characteristics of a PCR-based assay for in planta detection of Xanthomonas campestris pv. pelargonii

AU Sulzinski, M. A.; Moorman, G. W.; Schlagnhaufer, B.; Romaine, C. P.

CS Department of Biology, University of Scranton, Scranton, PA 18510, USA.

SO Journal of Phytopathology, (1996) Vol. 144, No. 7/8, pp. 393-398. 9 ref. ISSN: 0931-1785

DT Journal

LA English

SL German

AB A sequence in the geranium [Pelargonium] pathogen X. c. pv. pelargonii [X. hortorum pv. pelargonii] genome was targeted by PCR with a primer pair (XcpM1/XcpM2) using total nucleic acid preparations from 22 geographically-diverse isolates of X. h. pv. pelargonii. A major 197 bp DNA product was generated. No major amplification products were consistently generated from 12 other pathovars of X. campestris or from 19 isolates representing 10 different plant pathogenic bacteria, including 2 other bacterial geranium pathogens, **Corynebacterium fascians** [Rhodococcus fascians] and Pseudomonas cichorii. After PCR amplification 1380-13 800 copies of the X. h. pv. pelargonii bacterial DNA target as template were detected by ethidium bromide staining of agarose gels, and 13.8-138 copies were detected by blot hybridization to a pathovar-specific biotinylated probe. Between 630 and 6300 c.f.u. of X. h. pv. pelargonii were detected after ethidium bromide staining of agarose gels, and 63-630 c.f.u. were detected after blot hybridization. The PCR-based assay identified X. h. pv. pelargonii in diseased geraniums and discrete amplification products were not obtained with healthy plants.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; WW000 Biotechnology; ZZ900 Techniques and Methodology

BT Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; plants; prokaryotes

CT plant pathogens; plant pathogenic bacteria; molecular genetics; DNA; nucleotide sequences; polymerase chain reaction; identification; techniques; ornamental plants; biotechnology; plant pathology

ST Xanthomonas hortorum pv. pelargonii

ORGN Pelargonium; bacteria

L1 ANSWER 42 OF 284 CABA COPYRIGHT 2001 CABI
AN 95:183847 CABA
DN 952310559
TI Association of Rhodococcus (**Corynebacterium**) **fascians** with the stunting-fasciation syndrome of carnation in Israel
AU Zutra, D.; Cohen, J.; Gera, A.; Loebenstein, G.; Mokra, V. [EDITOR]; Brunt, A. [EDITOR]; Derks, T. [EDITOR]; Zaayen, A. van [EDITOR]
CS Deparment of Plant Pathology and Virology, The Volcani Center, Bet Dagan 50250, Israel.
SO Acta Horticulturae, (1994) No. 377, pp. 319-323. 8 ref.
Meeting Info.: Eighth international symposium on virus diseases of ornamental plants, held in Prague, Czech Republic, 24-28 August 1992.
ISSN: 0567-7572; ISBN: 90-6605-326-7
DT Conference Article; Journal
LA English
AB A disease causing stunting of carnation plants and fasciation and deformation of flowers has been found in Israel in several locations since 1985. Symptoms resemble 'mal del prezzemolo' found in Italy. Attempts to transmit this disease mechanically to carnations and to various herbaceous test plants were unsuccessful. Neither was transmission obtained when >60 carnation plants were grafted with diseased scions. When symptomatic plants were transfered from the growers greenhouse to Bet Dagan symptoms at first disappeared, but appeared stronger later. In additional experiments, a Gram positive non-motile bacterium was consistently isolated from symptomatic plants and was identified as Rhodococcus fascians using immunological techniques, and it is suggested that this bacterium is involved in fasciation disease of carnations.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Israel
BT pathogens; bacteria; prokaryotes; plant pathogens; plants; Dianthus; Caryophyllaceae; Caryophyllales; dicotyledons; angiosperms; Spermatophyta; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; Developed Countries; Mediterranean Region; Middle East; West Asia; Asia
CT plant diseases; plant pathogens; plant pathogenic bacteria; ornamental plants; carnations; plant pathology
ST International symposium on virus diseases of ornamental plants
ORGN Dianthus caryophyllus; Rhodococcus fascians; bacteria

L1 ANSWER 43 OF 284 CABA COPYRIGHT 2001 CABI
AN 93:89221 CABA
DN 930322857
TI Narciclasine: 1H- and 13C-NMR data and a new improved method of preparation
AU Evidente, A.
CS Dipartimento di Scienze Chimico-Agrarie, Universita di Napoli 'Federico II', 80055 Portici, Italy.
SO Planta Medica, (1991) Vol. 57, No. 3, pp. 293-295. 10 ref.
ISSN: 0032-0943
DT Journal
LA English
AB Narciclasine has been shown to possess antimitotic activity, activity against the bacterium **Corynebacterium fascians** [Rhodococcus fascians], and to inhibit ascorbic acid biosynthesis in potato tuber slices. 1H- and13C-NMR analyses allowed the proton and carbon shifts of narciclasine to be identified. A new method of extracting narciclasine from plant materials is described. When applied to bulbs of Sternbergia lutea and Narcissus tazzeta [N. tazetta], it gave significantly higher yields than the classic ethanolic extraction method.
CC FF040 Plant Composition

GT Italy
BT plants; Sternbergia; Amaryllidaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; Narcissus; Southern Europe; Europe; Mediterranean Countries
CT bulbs; composition; Alkaloids; extraction; medicinal plants
ORGN Sternbergia lutea; Narcissus tazetta

L1 ANSWER 44 OF 284 CABA COPYRIGHT 2001 CABI
AN 91:145962 CABA
DN 912313603
TI Rapid identification of cytokinins by an immunological method
AU Morris, R. O.; Jameson, P. E.; Laloue, M.; Morris, J. W.
CS Department of Biochemistry, University of Missouri-Columbia, Columbia, MO 65211, USA.
SO Plant Physiology, (1991) Vol. 95, No. 4, pp. 1156-1161. 28 ref.
ISSN: 0032-0889
DT Journal
LA English
AB A method for rapid identification of bacterial cytokinins was developed in which cultures were fed [3H]adenine. The cytokinins (including 3H-labelled cytokinins) were isolated by immunoaffinity chromatography, and analyzed by HPLC with on-line scintillation counting. Analysis of Agrobacterium tumefaciens strains showed that some produced primarily trans-zeatin, whereas others produced trans-zeatin riboside. Pseudomonas syringae pv. savastanoi produced mixtures of trans-zeatin, dihydrozeatin, 1'-methyl-trans-zeatin riboside, and other unknown cytokinin-like substances. **Corynebacterium fascians** produced cis-zeatin, 2iP and isopentenyladenosine. The technique was designed to be qualitative rather than quantitative.
CC FF060 Plant Physiology and Biochemistry; FF100 Plant Production; WW000 Biotechnology
BT plant growth regulators; cytokinins; prokaryotes
CT Cytokinins; immunoassay; Zeatin; isopentenyladenine; Immunological techniques; plant growth regulators; biotechnology
ST Zeatin, dihydro-; Adenosine, isopentenyl-
RN 1637-39-4; 2365-40-4
ORGN bacteria

L1 ANSWER 45 OF 284 CABA COPYRIGHT 2001 CABI
AN 89:3355 CABA
DN 890391463
TI Structure and antibacterial activity of plantamajoside, a caffeic acid sugar ester from Plantago major subsp. major
AU Ravn, H.; Brimer, L.
CS Royal Danish School of Pharmacy, Department of Pharmacognosy and Botany, 2 Universitetsparken, 2100 Copenhagen, Denmark.
SO Phytochemistry, (1988) Vol. 27, No. 11, pp. 3433-3437. 18 ref.
ISSN: 0031-9422
DT Journal
LA English
AB The structure of plantamajoside, a phenylpropanoid glycoside isolated from P. major subsp. major leaves, was deduced from chemical, spectral and other physical evidence, to be 3,4-dihydroxy- beta -phenethyl-O- beta -D-glucopyranosyl-(1 right arrow 3)-4-O-caffeoyl- beta -D-glucopyranoside. The Minimum Inhibitory Concentration values were evaluated for 7 plant pathogenic bacteria (Agrobacterium tumefaciens, **Corynebacterium fascians**, C. rathayi, C. sepedonicum, Erwinia carotovora subsp. carotovora, Pseudomonas syringae and Xanthomonas [campestris pv.] pelargonii) and for Escherichia coli (ML 30) and Staphylococcus aureus (502 A) after preliminary investigations by the agar diffusion method.

CC FF040 Plant Composition; FF500 Weeds and Noxious Plants; HH400 Control by Chemicals and Drugs; HH000 Pathogen, Pest and Parasite Management (General)
BT plants; Plantago; Plantaginaceae; Plantaginales; dicotyledons; angiosperms; Spermatophyta
CT leaves; composition; Glycosides; characterization; Phenolic compounds; Antibacterial properties; Weeds; utilization; pesticidal plants
ORGN Plantago major

L1 ANSWER 46 OF 284 CABA COPYRIGHT 2001 CABI
AN 88:5152 CABA
DN 881339723
TI The population dynamics of Corynebacterium michiganense pv. michiganense and other selected bacteria in tomato leaves
AU Tsiantos, J.; Stevens, W. A.
CS Pl. Prot. Inst., Volos, Greece.
SO Phytopathologia Mediterranea, (1986) Vol. 25, No. 1-3, pp. 160-162. 11 ref.
ISSN: 0031-9465
DT Journal
LA English
AB On inoculation of plants at the 8-9 true leaf stage the homologous pathogen C. michiganense pv. michiganense [Clavibacter michiganensis subsp. michiganensis] multiplied rapidly to high final populations and caused typical disease symptoms when these reached 107 CFU/plant unit. The saprophyte population (Pseudomonas aeruginosa and Flavobacterium sp.) declined slowly after inoculation without causing symptoms. Populations of the heterologous Pseudomonas syringae pv. syringae and pv. phaseolicola and **Corynebacterium fascians** remained static or declined slowly. Those of Erwinia chrysanthemi and Xanthomonas campestris pv. campestris increased only when introduced in low concn, and without causing symptoms.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT bacteria; prokaryotes; Clavibacter michiganensis; Clavibacter; coryneform group of bacteria; Firmicutes; Lycopersicon; Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants
CT Tomatoes; populations; fruit vegetables; plant pathogenic bacteria; plant pathology
ORGN Clavibacter michiganensis subsp. michiganensis; bacteria; Lycopersicon esculentum

L1 ANSWER 47 OF 284 CABA COPYRIGHT 2001 CABI
AN 87:89591 CABA
DN 870704434
TI Allelopathic effects of green fronds of Pteridium aquilinum on cultivated plants, weeds, phytopathogenic fungi and bacteria
AU Nava R., V.; Fernandez L., E.; Del Amo R., S.
CS Inst. Fisiologia Celular, UNAM, 04510 Mexico DF.
SO Agriculture, Ecosystems and Environment, (1987) Vol. 18, No. 4, pp. 357-379. 33 ref.
DT Journal
LA English
AB The effects of aqueous and methanolic extracts of the fronds of P. aquilinum and of the macerated fronds on the germination and radicle growth of maize, groundnuts, Pachyrrhizus erosus, sesame, chile ancho, tomato and Brassica nigra and 5 weed species (Portulaca oleracea, Momordica charantia, Sida rhombifolia, Neurolaena lobata, Mikania cordifolia) were tested. The results indicated that the growth of 4 out of the 5 weed species was markedly inhibited in the test with macerated fronds. The aqueous extract had no significant effect on either the

cultivated or the weed species. B. nigra and tomato appeared to be the species most susceptible to the methanolic extract of the fronds. The effect on the growth of 4 species of phytopathogenic fungi (Helminthosporium sativum, Rhizoctonia solani, Alternaria tenuis, Fusarium sp.) and 4 phytopathogenic bacteria (Xanthomonas campestris, X. phaseoli, Pseudomonas syringae, **Corynebacterium fascians**) was also tested. The fungal growth was strongly inhibited by the aqueous extract, and this inhibitory activity was maintained throughout the experiment. In the bioassays with methanolic and ethanolic extracts, some of the fungi tended to recover. The diluted aqueous fraction (1:10) of the methanolic extract stimulated the growth of all the fungi tested. The aqueous extract inhibited only the growth of the sole gram-positive bacteria species among those tested.

CC FF060 Plant Physiology and Biochemistry; FF100 Plant Production; FF500 Weeds and Noxious Plants; FF700 Plant Disorders and Injuries (Not caused directly by Organisms)

BT plants; fatty oil plants; oil plants; Spermatophyta; Pteridium; Dennstaedtiaceae; ferns; Pteridophyta; Momordica; Cucurbitaceae; Violales; dicotyledons; angiosperms; Sida; Malvaceae; Malvales; Brassica; Cruciferae; Capparidales; Capsicum; Solanaceae; Solanales; Arachis; Leguminosae; Fabales; Sesamum; Pedaliaceae; Scrophulariales; Portulaca; Portulacaceae; Caryophyllales; Zea; Gramineae; Cyperales; monocotyledons; Lycopersicon

CT Allelopathins; ecology; allelopathy; Maize; weeds; Groundnuts; Tomatoes; Sesame; seed germination; roots; germination; oilseed plants; plant growth regulators

ST Neurolaena lobata; Mikania cordifolia; Pachyrrhizus erosus

ORGN Pteridium aquilinum; Momordica charantia; Sida rhombifolia; Brassica nigra; Capsicum annuum; Arachis hypogaea; Sesamum indicum; Portulaca oleracea; Zea mays; Lycopersicon esculentum; Pteridium; Capsicum; Arachis; Sesamum; Brassica; Zea; Lycopersicon

L1 ANSWER 48 OF 284 CABA COPYRIGHT 2001 CABI

AN 87:2905 CABA

DN 871321043

TI Avirulent isolates of **Corynebacterium fascians** that are unable to utilize agmatine and proline

AU Sabart, P. R.; Gakovich, D.; Hanson, R. S.

CS Gray Freshwater Biol. Inst., Univ. Minnesota, Navarre, MN 55392, USA.

SO Applied and Environmental Microbiology, (1986) Vol. 52, No. 1, pp. 33-36. 11 ref.
ISSN: 0099-2240

DT Journal

LA English

AB Growth of a highly virulent str. of the phytopathogen C. [Rhodococcus] fascians on rich media at 37 deg C resulted in a loss of virulence in a majority of the population within 10 generations. Strs. retained virulence during culture at 30 deg on a minimal medium with NH3 as N source. Populations of avirulent strs. on the surfaces of pea seedlings decreased, whereas the nubmer of cells of the virulent str. increased 1000-fold during a 3-wk period. All avirulent mutants isolated by growth on rich media at 37 deg were unable to grow on media containing agmatine or proline as sole N sources. The ability of the mutants to grow on pea seedlings and cause fasciation appeared to be related to their ability to utilize N sources available on plant surfaces.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants

CT Peas; Rhodococcus fascians; nutrition; virulence; grain legumes; plant

pathogenic bacteria; plant pathology
ORGN bacteria

L1 ANSWER 49 OF 284 CABA COPYRIGHT 2001 CABI
AN 86:121012 CABA
DN 861320217
TI Studies on the diagnosis of foreign bacterial diseases of quarantine significance. V. A selective medium for isolation and detection of **Corynebacterium fascians**
AU Takayama, M.; Kawai, A.; Suetsugu, T.
CS Yokohama Pl. Prot. Sta., Yokohama, Japan.
SO Research Bulletin of the Plant Protection Service, Japan, (1985) No. 21, pp. 33-40. 13 ref.
ISSN: 0387-0707
DT Journal
LA Japanese
AB On this modified selective medium, described, orange-coloured colonies of C. fascians appeared after incubation for 7 d at 25 deg C, and could be distinguished from other bacterial colonies. The medium is suitable for the isolation of C. fascians from sweet pea diseased tissue and rhizosphere soil, for plant quarantine inspection.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology; DD500 Laws and Regulations
GT Japan
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Lathyrus; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; East Asia; Asia
CT Sweet peas; RHODOCOCCUS FASCIANS; culture media; isolation; quarantine; Soil; Techniques; Legislation; ornamental plants; plant pathogenic bacteria; plant pathology
ORGN bacteria; Lathyrus odoratus

L1 ANSWER 50 OF 284 CABA COPYRIGHT 2001 CABI
AN 85:107169 CABA
DN 851310125
TI A mutant of **Corynebacterium fascians** without the capacity to utilize benzoic acid
AU Iovoilov, V. S.; Karasevich, Yu. N.; Surovtseva, E. G.
CS Inst. Microbiol., Soviet Acad. Sci., Moscow, USSR.
SO Mikrobiologiya, (1985) Vol. 54, No. 3, pp. 502-504. 2 graphs. 5 ref.
ISSN: 0026-3656
DT Journal
LA Russian
SL English
AB The str. utilized p-fluorobenzoic acid as a carbon source, but could not assimilate its natural analogue benzoic acid, because the enzyme catalysing lactonization of cis,cis-muconic acid was inactivated.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; mutants; benzoic acid; Induced mutations; plant pathogenic bacteria; plant pathology
RN 65-85-0
ORGN bacteria

L1 ANSWER 51 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:141584 CABA
DN 841302042
TI **Corynebacterium fascians**: phytopathogenicity and numerical analysis of phenotypic features

AU Elia, S.; Gossele, F.; Vantomme, R.; Swings, J.; Ley, J. de
CS IWONL, Lab. Microbiol. Microbiele Genetica, RUG, Ghent, Belgium.
SO Phytopathologische Zeitschrift, (1984) Vol. 110, No. 2, pp. 89-105. 2 fig., 4 tab. 42 ref.
DT Journal
LA English
SL German
AB The 44 C. fascians strs. and 13 other identified and unidentified bacterial strs. from different geographical origins and host plants were characterized by their pathogenicity towards Lilium longiflorum cv. White Europe, Pelargonium zonale and sweet pea, together with 206 morphological, biochemical and physiological features. Symptoms on lilies are described. Numerical analysis of the phenotypic features using the Ssm similarity coefficient and the av. unweighted pair-group clustering method revealed that all C. fascians strs. formed a rather homogeneous cluster: > 80% Ssm existed between the 44 C. fascians strs. from phenon II. From these results the reclassification of C. fascians as Rhodococcus rhodochrous is not indicated, although C. fascians is said to remain a 'species in search of a genus'.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ380 Taxonomy and Evolution
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Lilium; Liliaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; plants; Pelargonium; Geraniaceae; Geraniales; dicotyledons; Lathyrus; Leguminosae; Fabales
CT RHODOCOCCUS FASCIANS; characteristics; hosts; pathogenicity; taxonomy; Sweet peas; plant pathogenic bacteria; plant pathology
ORGN Lilium longiflorum; Pelargonium zonale; bacteria; Lathyrus odoratus

L1 ANSWER 52 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:141535 CABA
DN 841301988
TI Reclassification of **Corynebacterium fascians** (Tilford) Dowson in the genus Rhodococcus, as Rhodococcus fascians comb. nov
AU Goodfellow, M.
CS Dep. Microbiol., Medical School, Univ. Newcastle-upon-Tyne, UK.
SO Systematic and Applied Microbiology, (1984) Vol. 5, No. 2, pp. 225-229. 40 ref.
ISSN: 0723-2020
DT Journal
LA English
AB Chemical, genetical and phenetic data indicate a close relationship between C. fascians (which causes leaf galls and fasciation) and representatives of the genus Rhodococcus. It is proposed that C. fascians be reclassified as the new comb. R. fascians.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; nomenclature; plant pathogenic bacteria; plant pathology
ORGN bacteria

L1 ANSWER 53 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:91356 CABA
DN 841399184
TI A 78-megadalton plasmid occurs in avirulent strains as well as virulent strains of **Corynebacterium fascians**
AU Lawson, E. N.; Gantotti, B. V.; Starr, M. P.
CS Dep. Bacteriol., Univ. California, Davis, Calf. 95616, USA.
SO Current Microbiology, (1982) Vol. 7, No. 6, pp. 327-332. 2 fig., 1 tab. 20

ref.
ISSN: 0343-8651
DT Journal
LA English
AB Each of the 10 wild-type strs. of C. fascians, which differed in degree of virulence as measured by ability to cause hyperplasias in pea seedlings, harboured a single 78 Mdal plasmid. The relationship of these plasmids to phytopathogenicity remains uncertain.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes
CT RHODOCOCCUS FASCIANS; plasmid vectors; virulence; plant pathogenic bacteria; plant pathology
ORGN bacteria

L1 ANSWER 54 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:79165 CABA
DN 841398121
TI Phenotypic and phytopathological characterization of **Corynebacterium fascians**
AU Elia, S.; Gossele, F.; Genetello, C.; Swings, J.; Montagu, M. Van; Ley, J. de
CS Lab. Microbiol. Microbiele Genetica, Ghent, Belgium.
SO Mededelingen van de Faculteit Landbouwwetenschappen Rijksuniversiteit Gent, (1983) Vol. 48, No. 3, pp. 677-683. 1 fig., 1 tab. 22 ref.
DT Conference Article; Journal
LA English
AB A numerical analysis of 206 phenotypic features revealed considerable homogeneity among 44 C. fascians isolates from different geographical origins and host plants. The taxonomic position of C. fascians is discussed. Pathogenicity tests on Lilium longiflorum, Pelargonium zonale var. adonis and Lathyrus odoratus needed a long incubation time or gave variable results. A more rapid and reproducible test on a more sensitive host, Petunia, revealed 4, 34 and 6 strs. respectively, that were not pathogenic, pathogenic and strongly pathogenic. These 6 strs. were also pathogenic to tobacco.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ380 Taxonomy and Evolution
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Lilium; Liliaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; plants; Solanaceae; Solanales; dicotyledons; Lathyrus; Leguminosae; Fabales
CT RHODOCOCCUS FASCIANS; hosts; phenotypes; pathogenicity; taxonomy; Sweet peas; Tobacco; plant pathogenic bacteria; plant pathology
ST Pelargonium zonale var. adonis; International on phytopharmacy and phytiatry
ORGN Lilium longiflorum; Petunia; bacteria; Lathyrus odoratus; Nicotiana

L1 ANSWER 55 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:70597 CABA
DN 841397784
TI **Corynebacterium fascians** (Tilford 1936) Dowson 1942, the causal agent of leafy gall on lily crops in Belgium
AU Vantomme, R.; Elia, S.; Swings, J.; Ley, J. de
CS Univ. Ghent, Belgium.
SO Parasitica, (1982) Vol. 38, No. 4, pp. 183-192. 4 fig., 3 tab. 21 ref.
ISSN: 0031-1812
DT Journal
LA English
SL Dutch

AB Symptoms and morphological, biochemical and physiological characters of the pathogen are described.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Belgium
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Liliaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; Western Europe; Europe
CT RHODOCOCCUS FASCIANS; symptoms; ornamental plants; plant pathogenic bacteria; plant pathology
ORGN Lilium; bacteria

L1 ANSWER 56 OF 284 CABA COPYRIGHT 2001 CABI
AN 84:59670 CABA
DN 841396777
TI Association of **Corynebacterium fascians** with fasciation disease of Impatiens and Hebe in California
AU Cooksey, D. A.; Keim, R.
CS Univ. California, Riverside, USA.
SO Plant Disease, (1983) Vol. 67, No. 12, pp. 1389.
ISSN: 0191-2917
DT Journal
LA English
AB Stem fasciations caused by the bacterium were observed on c. 90% of 1-yr-old Miniature Pink I. wallerana plants and c. 20% of 1-yr-old Rubra R. speciosa and Variegata H. elliptica plants, all new host records.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT California
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Scrophulariaceae; Scrophulariales; dicotyledons; angiosperms; Spermatophyta; Balsaminaceae; Geraniales; Pacific States of USA; Western States of USA; USA; North America; America
CT RHODOCOCCUS FASCIANS; Records; hosts; ornamental plants; plant pathogenic bacteria; plant pathology
ST Impatients
ORGN Hebe; Impatiens; bacteria

L1 ANSWER 57 OF 284 CABA COPYRIGHT 2001 CABI
AN 83:69098 CABA
DN 831389172
TI Isolation of some strains of **Corynebacterium fascians** (Tilford) Dowson in Czechoslovakia
AU Ulrychova, M.; Petru, E.
CS Inst. Exp. Bot., Acad. Sci., Prague, Czechoslovakia.
SO Biologia Plantarum, (1983) Vol. 25, No. 1, pp. 63-67. 1 tab. 14 ref.
ISSN: 0006-3134
DT Journal
LA English
AB Two highly virulent and 1 avirulent str., producing acid from rhamnose, were isolated from fasciations on Pelargonium zonale. An avirulent str. was isolated from a celery root explant on a nutrient in vitro. Morphological, cultural, physiological and biochemical characters were compared with an American patented str.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
GT Czechoslovakia
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Pelargonium; Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; plants; Apium; Umbelliferae; Apiales; Central Europe; Europe
CT celery; RHODOCOCCUS FASCIANS; strains; plant pathogenic bacteria; plant pathology

ORGN Pelargonium zonale; bacteria; Apium graveolens

L1 ANSWER 58 OF 284 CABA COPYRIGHT 2001 CABI
AN 83:67889 CABA
DN 821387616
TI Quantitative analysis of free amino acids in either leafy gall induced by **Corynebacterium fascians** or its tissue culture
AU El-Wakil, M.; Blakeny, E.
CS Mansoura Univ., Egypt.
SO Egyptian Journal of Phytopathology, (1980) Vol. 12, No. 1/2, pp. 145-148. 1 tab. 13 ref.
ISSN: 0301-8180
DT Journal
LA English
SL Arabic
AB Free amino acid levels were generally lower than normal in gall tissues of Datura innoxia and gall tissue cultures, but levels of phenylalanine and lysine were considerably higher. Arginine levels were 17 times as high in leafy gall tissue cultures than in normal tissue cultures.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Datura; Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants
CT RHODOCOCCUS FASCIANS; amino acids; host parasite relationships; plant pathogenic bacteria; plant pathology
ST Datura innoxia
ORGN bacteria; DATURA FASTUOSA

L1 ANSWER 59 OF 284 CABA COPYRIGHT 2001 CABI
AN 83:15283 CABA
DN 830314303
TI Hot water treatment of Lilium longiflorum bulbs
De warmwaterbehandeling van Lilium longiflorum
AU Kruyer, C. J.; Boontjes, J.
CS Laboratorium voor de Bloembollenonderzoek, Lisse, Netherlands.
SO Bloembollencultuur, (1982) Vol. 93, No. 25, pp. 622-623. 1 pl.
ISSN: 0165-6406
DT Journal
LA Dutch
AB Planting stock of Lilium longiflorum cv. White Europe survived hot water treatment at 39 deg C for 2 h better than at 41 deg . Losses at the higher temperature were considerable. Nematodes and leafy gall disease [**Corynebacterium fascians**] were controlled adequately at 39 deg in this trial, but it is recommended that commercial formalin at 0.5% should be added to the tank to ensure C. fascians control.
CC FF100 Plant Production; HH000 Pathogen, Pest and Parasite Management (General); FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT pesticides; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; animals; plants; ornamental plants; Spermatophyta; Nematoda; invertebrates; Lilium; Liliaceae; Liliales; monocotyledons; angiosperms
CT bulbs; treatment; bactericides; heat; diseases; RHODOCOCCUS FASCIANS; pests; hot water treatment; control; ornamental plants; ornamental bulbs; plant parasitic nematodes; plant nematology; nematology
ST Formalin; Ornamentals, bulbs
ORGN Lilium longiflorum; Lilium; Nematoda

L1 ANSWER 60 OF 284 CABA COPYRIGHT 2001 CABI
AN 83:11381 CABA
DN 830313412

TI Stimulation and inhibition reactions in plants infected by **Corynebacterium fascians** (Tilford) Dowson
AU Roussaux, J
AV DNAL (421 M33)
SO Marcellia, Oct 1975 Vol. 38, No. 4, pp. 305-310. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 29 OF 284 AGRICOLA
AN 77:10908 AGRICOLA
DN 77-9010581
TI Cytokinins in **Corynebacterium fascians** cultures: isolation and identification of 6-(4-hydroxy-3-methyl-cis-2-butenylamino)-2-methylthiopurine [tobacco bioassay]
AU Armstrong, D J; Scarbrough, E; Skoog, F; Cole, D L; Leonard, N J
AV DNAL (450 P692)
SO Plant Physiol, Dec 1976 Vol. 58, No. 6, pp. 749-752. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 30 OF 284 AGRICOLA
AN 76:2173 AGRICOLA
DN 76-9002180
TI The relation between the shoots of plants inoculated with [witches' broom] Cornyebacterium fascians [Peas]
Relations entre bourgeons dans les plantes inoculees avec **Corynebacterium fascians**
AU Roussaux, J; Horrelt, M
AV DNAL (470 C16C)
SO Can J Bot, Sept 1, 1975 Vol. 53, No. 17, pp. 1934-1941. Ref. Eng. Sum.
DT Journal; Article
LA French
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 31 OF 284 AGRICOLA
AN 76:1292 AGRICOLA
DN 76-9001299
TI Stimulation and inhibition reactions in [pea] plants infected by **Corynebacterium fascians** (Tilford) Dowson
AU Roussaux, J
AV DNAL (421 M33)
SO Marcellia, Oct 1975 Vol. 38, No. 4, pp. 305-310. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 32 OF 284 AGRICOLA
AN 75:112822 AGRICOLA
DN 75-9114710
TI Persistence of pea cotyledons induced by **Corynebacterium fascians**
AU Oduro, K A; Munnecke, D E
AV DNAL (464.8 P56)
SO Phytopathology, Oct 1975 Vol. 65, No. 10, pp. 1114-1116.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

GTO Scotland

L1 ANSWER 24 OF 284 AGRICOLA
AN 78:54731 AGRICOLA
DN 78-9034002
TI Isolation and identification of ribosyl-cis-zeatin from transfer RNA of **Corynebacterium fascians** [casual bacterium of the fasciation disease]
AU Einset, J W; Skoog, F K
AV DNAL (442.8 B5236)
SO Biochem Biophys Res Commun, Dec 21, 1977 Vol. 79, No. 4, pp. 117-1121. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)
RN 9014-25-9 (TRANSFER RNA)

L1 ANSWER 25 OF 284 AGRICOLA
AN 78:22431 AGRICOLA
DN 78-9015382
TI In vivo and in vitro interactions between Agrobacterium tumefaciens and **Corynebacterium fascians** [Datura innoxia]
AU El-Goorani, M A; Abo-El-Dahab, M K; El-Wakil, M A
CS U.S. Agricultural Research Service
AV DNAL (1.9 P69P)
SO Plant Dis Rep, Nov 1977 Vol. 61, No. 11, pp. 963-967. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 26 OF 284 AGRICOLA
AN 77:78255 AGRICOLA
DN 77-9102732
TI Bacterial [**Corynebacterium fascians**] fasciation of Pelargonium hortorum in Hungary
AU Sule, S
AV DNAL (SB731.A3)
SO Acta Phytopathol, 1976 Vol. 11, No. 3/4, pp. 223-230. Ref.
DT Journal; Article
LA English
CC 4510 Plant Bacterial Diseases and Control (1972-79)
GTO Hungary

L1 ANSWER 27 OF 284 AGRICOLA
AN 77:27055 AGRICOLA
DN 77-9025436
TI Bacterial [corm] tumor of Gladiolus [caused by **Corynebacterium fascians**]
Bakterialni nadorovitost gladiolu
AU Zacha, V
AV DNAL (464.8 SB5)
SO Sb UVTI, Ochr Rostl Cesk Akad Zemed (Ustav Vedeckotech Inf), May 1975 Vol. 11, No. 2, pp. 163-164.
DT Journal; Article
LA Czech
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 28 OF 284 AGRICOLA
AN 77:18738 AGRICOLA
DN 77-9018653

RL: BIOL (Biological study)
(sacB, in mobilisable plasmid for identification of mobile genetic elements in Corynebacterium, selectable marker in relation to)

IT Genetic element
RL: PROC (Process)
(transposable element, in Corynebacterium, detection of, plasmid for)

IT 152143-47-0 152143-48-1
RL: PRP (Properties)
(amino acid sequence of, cloning of insertion element in, method for)

IT 152143-46-9
RL: PRP (Properties); BIOL (Biological study)
(nucleotide sequence and cloning of)

IT 57-50-1, Sucrose, analysis
RL: PRP (Properties)
(resistance to high levels of, inactivation of Bacillus sacB gene in Corynebacterium for, detection of mobile genetic elements in relation to)

L1 ANSWER 109 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1993:644812 CAPLUS
DN 119:244812
TI A rapid technique for assessing the cytokinin biosynthetic capacity of microorganisms
AU Jameson, P. E.; Morris, R. O.; Laloue, M.; Morris, J. W.
CS Dep. Biochem., Univ. Missouri, Columbia, MO, 65211, USA
SO Physiol. Biochem. Cytokinins Plants, Symp. (1992), Meeting Date 1990, 473-5. Editor(s): Kaminek, Miroslav; Mok, David W. S.; Zazimalova, Eva. Publisher: SPB Acad. Publ., The Hague, Neth.
CODEN: 59KXA9
DT Conference
LA English
CC 9-8 (Biochemical Methods)
Section cross-reference(s): 10, 11
AB The basis for the method of R. O. Morris and M. Laloue is simple: cells are grown in the presence of [3H]adenine and the labeled cytokinins are isolated from the culture media and purified by immunoaffinity chromatog. on immobilized anticytokinin antibody columns. The cytokinins then are characterized by HPLC on octadecylsilica and online monitoring of radioactivity in the HPLC effluent. This technique was applied to a range of microorganisms (Agrobacterium tumefaciens, Escherichia coli, Pseudomonas syringae savastanoi, and **Corynebacterium fascians**) and the procedure provides sufficient information to confidently characterize known cytokinins. A comparison of cytokinin prodn. by A. tumefaciens strains C58, B3/73, and M2/73 is presented here.
ST microorganism cytokinin biosynthesis detn radioassay; Agrobacterium cytokinin biosynthesis detn
IT Agrobacterium tumefaciens
Bacteria
Microorganism metabolism
(cytokinins formation by, radioassay of)

IT Plant hormones and regulators
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(cytokinins, biosynthesis of, by microorganisms, radioassay of)

L1 ANSWER 110 OF 284 CAPLUS COPYRIGHT 2001 ACS
AN 1993:209325 CAPLUS
DN 118:209325
TI **Corynebacterium fascians**: cytokinin production is positively correlated with virulence

pea were found in the morphological cycle and excretion of carotenoid substances. Bacterial density was max. on the leaf cuticle. Growth on the plant and pathogenicity were not correlated. Pathogenicity was max. after asparagine and thiamine were added to the inoculum and in the decline phase of growth. The ecological significance of some features of growth of C. fascians on pea is discussed.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants
CT PEAS; RHODOCOCCUS FASCIANS; grain legumes; plant pathogenic bacteria; plant pathology
ST growth and pathogenicity
ORGN bacteria

L1 ANSWER 63 OF 284 CABA COPYRIGHT 2001 CABI
AN 81:68449 CABA
DN 811371998
TI Selective toxicity of isoflavonoid phytoalexins to Gram-positive bacteria
AU Gnanamanickam, S. S.; Smith, D. A.
CS Hull Univ., UK.
SO Phytopathology, (1980) Vol. 70, No. 9, pp. 894-896. 1 fig., 1 tab. 19 ref. ISSN: 0031-949X
DT Journal
LA English
AB The phytoalexins, kievitone and phaseollin, from French bean [Phaseolus vulgaris] were selectively toxic to Gram + bacteria. In a standard paper disk bioassay 10-50 mu g kievitone or phaseollin inhibited the growth of 7 Gram + but none of the 8 Gram -, bacteria tested. Phaseollidin and phaseollinisoflavan also possessed this selective toxicity to Gram + bacteria. Only 2 mu g kievitone (0.56 X 10-8mole), the most toxic of the compounds examined, inhibited the growth of **Corynebacterium fascians**, Bacillus subtilis and Micrococcus luteus.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; Bacillus; Bacillaceae; Micrococcus; Micrococcaceae
CT RHODOCOCCUS FASCIANS; effects; phytoalexins; grain legumes; plant pathogenic bacteria; plant pathology
ORGN Bacillus subtilis; Micrococcus luteus; bacteria

L1 ANSWER 64 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:72665 CABA
DN 801366240
TI Production of dahlia tubers and current phytosanitary problems
La production des tubercules de dahlia et ses problemes phytosanitaires actuels
AU Vidalie, H.; Digat, B.; Girard, J.-J.
CS ENITA (H.), Angers, France.
SO Revue Horticole, (1980) No. 208, pp. 13-25. 16 fig. (6 col.), 10 diag. 8 ref.
DT Journal
LA French
AB An account is given of symptoms of and measures against dahlia mosaic, cucumber mosaic and tomato ringspot viruses; Agrobacterium tumefaciens, **Corynebacterium fascians** and Erwinia chrysanthemi, and also their biology; and Botrytis cinerea, Entyloma dahliae, Erysiphe cichoracearum, Fusarium sp., Pythium debaryanum, Rhizoctonia solani, Sclerotinia sclerotiorum and Verticillium albo-atrum.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH000 Pathogen,

Pest and Parasite Management (General)
GT France
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Agrobacterium; Rhizobiaceae; Gracilicutes; Erwinia; Enterobacteriaceae; Botrytis; Deuteromycotina; Eumycota; fungi; Entyloma; Ustilaginales; Basidiomycotina; Erysiphe; Erysiphales; Ascomycotina; Pythium; Peronosporales; Mastigomycotina; Rhizoctonia; Sclerotinia; Helotiales; Verticillium; Pezizales; nepovirus group; plant viruses; viruses; cucumovirus group; Western Europe; Europe; Mediterranean Countries
CT diseases; RHODOCOCCUS FASCIANS; production; cultural methods; ornamental plants; ornamental bulbs; plant pathogenic bacteria; plant pathology
ST tuber production; Dahlia mosaic virus; tomato ringspot virus; cucumber mosaic virus
ORGN Dahlia; Agrobacterium tumefaciens; Erwinia chrysanthemi; Botrytis cinerea; Entyloma dahliae; Erysiphe cichoracearum; Fusarium; Pythium debaryanum; Rhizoctonia solani; Sclerotinia sclerotiorum; Verticillium albo-atrum; tuber; bacteria; TOMATO RINGSPOT NEPOVIRUS; CUCUMBER MOSAIC CUCUMOVIRUS

L1 ANSWER 65 OF 284 CABA COPYRIGHT 2001 CABI
AN 80:72152 CABA
DN 801361667
TI Microbial ecology
AU Kemp, D. R.; Taylor, J. B.; Tseng, P. S.; Blackie, M. J.; Close, R. C.; Newhook, F. J.; Halsall, D. M.; Tippett, J. T.; Weste, G.; Nesbitt, H. J.; Malajczuk, N.; Glenn, A. R.; Loutit, M. W. [EDITOR]; Miles, J. A. R. [EDITOR]
SO Microbial ecology, (1978) pp. 452. ISBN 3-540-08974-8; 0-387-08974-8. Publisher: Springer-Verlag. Berlin\Heidelberg, New York
Meeting Info.: Microbial ecology.
CY Germany, Federal Republic of
DT Conference
LA English
AB Selected papers are published from the 240 presented at the 1st International Symposium on Microbial Ecology, Univ. Otago, Dunedin, New Zealand, 22-26 Aug. 1977. Papers on mycorrhiza are among those in the section on the plant rhizosphere. The plant diseases section includes:Kemp, D.R. Indole-3Ylacetic acid metabolism of **Corynebacterium fascians** (341-345, 13 ref., 2 fig., 2 tab.).Taylor, J.B. The source of infections by basidiomycete fungi causing a decline and replant disease in central Otago, New Zealand (346-349, 5 ref., 1 fig., 1 tab.). On stone fruit.Tseng, P.S.; Blackie, M.J.; Close, R.C. Systems analysis as a strategy for agroecosystem management: the barley leaf rust epidemic (350-352, 9 ref., 1 fig.). Puccinia hordei.Newhook, F.J. Phytophthora cinnamomi in native forests of Australia and New Zealand: indigenous or introduced? (353-359, 29 ref., 2 fig.).Halsall, D.M. Examination of a forest soil suppressive to Phytophthora cinnamomi (360-363, 5 ref., 2 fig., 3 tab.).Tippett, J.T. The response of eucalypt roots to infection by Phytophthora cinnamomi (364-368, 4 ref., 8 fig.).Weste, G. Environmental factors controlling severity of disease due to Phytophthora cinnamomi in Victoria (369-370).Nesbitt, H.J.; Malajczuk, N.; Glenn, A.R. Bacterial colonization of Phytophthora cinnamomi Rands (371-375, 8 ref., 4 fig.). ADDITIONAL ABSTRACT: This book contains a selection of the 240 papers presented at the International Microecology Symposium held in New Zealand in 1977. Contributions dealing with soil biology are listed in the two following records.
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; KK110 Silviculture; JJ100 Soil Biology; FF400 Mycorrhizas and Fungi of Economic

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?s rhodococcus fascians
      S1     142  RHODOCOCCUS FASCIANS
?s monocot
      S2    2732  MONOCOT
?s dicot
      S3    3059  DICOT
?s zeatn
      S4       0  ZEATN
?s zeatin
      S5    7462  ZEATIN
?s cytokin
      S6     110  CYTOKIN
?s cryopreservation
      S7   22230  CRYOPRESERVATION
? s s2 and s5 and s7
            2732  S2
            7462  S5
           22230  S7
      S8       0  S2 AND S5 AND S7
?s s4 and s7
               0  S4
           22230  S7
      S9       0  S4 AND S7
?s s5 and s7
            7462  S5
           22230  S7
     S10      13  S5 AND S7
?s s7 and s6
           22230  S7
             110  S6
     S11       0  S7 AND S6
?d s10/3,ab/all
      Display 10/3,AB/1     (Item 1 from file: 203)
DIALOG(R)File 203:AGRIS
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 01896565  AGRIS No: 95-098600
   A study of growth, flowering, and tuberisation in plants derived from
cryopreserved potato shoot-tips: implications for in vitro germplasm
collections
   Harding, K.; Benson, E.E. (Department of Genetics, Medical School,
 University of Nottingham, NG7 2UH (United Kingdom))
   Journal: Cryo-letters, 1994, v. 15(1) p. 59-66
   Language: English

                                - end of record -
?p
      Display 10/3,AB/2     (Item 2 from file: 203)
DIALOG(R)File 203:AGRIS
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 01812091  AGRIS No: 94-106301
   Embryogenic cell suspensions and plant regeneration through somatic
embryogenesis in banana and plantain Musa spp. (Culture de suspensions
cellulaires embryogeniques et regeneration en plantules par embryogenese
somatique chez le bananier et le bananier plantain Musa spp.)
   Dhed'a, D. (Kisangani Univ. (Zaire). Faculte des Sciences)
   Journal: Tropicultura, 1992, v. 10(4) p. 152-154
   Language: French   Summary Language: English, French
   Embryogenic cell suspensions have been initiated using explants from
 meristematic shoot-tips (scalps). The culture medium has been a modified
 Murashige and Skoog medium supplemented, according to the steps of
 culture, with 5 microM 2,4D, 1-10 microM BAP or *zeatin*. The suspensions
 obtained for 5 banana varieties have regenerated plants through somatic
 embryogenesis. Embryogenic cell suspensions have proved to be the material
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of choice for *cryopreservation*, protoplast isolation and culture and for genetic manipulation of Musa for resistance to diseases.

- end of record -

?p
Display 10/3,AB/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12372655 BIOSIS NO.: 200000126157
Cryopreservation of white poplar (Populus alba L.) by vitrification of in vitro-grown shoot tips.
AUTHOR: Lambardi M(a); Fabbri A; Caccavale A
AUTHOR ADDRESS: (a)Istituto sulla Propagazione delle Specie Legnose, Consiglio Nazionale delle Ricerche, Via Ponte di Formicola 76, 50018, Scandicci, Florence**Italy
JOURNAL: Plant Cell Reports 19 (3):p213-218 Jan., 1999
ISSN: 0721-7714
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: Shoot tips from in vitro-grown, cold-hardened stock plants of white poplar (Populus alba L.) were successfully cryopreserved at

-more-

?p
Display 10/3,AB/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2001 BIOSIS. All rts. reserv.
-196degreeC by one-step vitrification. After preculturing at 5degreeC for 2 days on hormone-free MS medium containing different sucrose concentrations, and loading for 20 min with 2 M glycerol and 0.4 M sucrose, shoot tips were treated with the PVS2 vitrification solution and plunged directly into liquid nitrogen. Best survival rate (90%) was obtained when shoot tips were precultured on 0.09 M sucrose, hormone-free MS medium, vitrified by exposure to PVS2 solution for 60 min at 0degreeC and, following *cryopreservation*, rewarmed at 40degreeC and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 muM N6-benzyladenine plus 0.5 muM gibberellic acid, while shoot rooting was achieved on MS medium containing 3 muM indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

1999

- end of record -

?p
Display 10/3,AB/4 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09215590 BIOSIS NO.: 199497223960
A study of growth, flowering, and tuberisation in plants derived from cryopreserved potato shoot-tips: Implications for in-vitro germplasm collections.
AUTHOR: Harding Keith(a); Benson Erica E
AUTHOR ADDRESS: (a)Dep. Genetics, Med. Sch., Univ. Nottingham, Nottingham NG7 2UH**UK
JOURNAL: Cryo Letters 15 (1):p59-66 1994
ISSN: 0143-2044
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The dynamics of the regeneration process in plants, derived from cryopreserved in vitro potato shoot-tips have been examined. The combined affects of *cryopreservation* with different post-thaw recovery media

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?p
Display 10/3,AB/4 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

(defined by plant growth regulator composition) on plant growth, maturation, flowering, and tuberisation were assessed. Cryopreserved shoot-tips recovered in a medium containing *zeatin*, gibberellic acid and indole acetic acid showed relatively rapid, synchronous rates of plant regeneration and maturation, whereas shoot-tips regenerated on hormone-free medium, or media containing auxins and/or gibberellic acid developed asynchronously. The ability of plants derived from cryopreserved shoot-tips to produce tubers was not affected by the *cryopreservation* process, unlike the formation of flowers, which was impaired compared to control, tuber-derived plants. In the context of a working genebank, the rate of and ability to synchronize growth of early post-thaw plantlets and their development to mature plants may be important considerations in choosing freezing and recovery strategies for the conservation of potato genetic resources.

1994

- end of record -

?p
Display 10/3,AB/5 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09171441 BIOSIS NO.: 199497179811
Embryogenic cell suspension and plant regeneration through somatic embryogenesis in bananas and plantains Musa spp.
AUTHOR: Dhed'a D
AUTHOR ADDRESS: Fac. Sci., Univ. Kisangani**Zaire
JOURNAL: Tropicultura 10 (4):p152-154 1992
ISSN: 0771-3312
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: French; Non-English
SUMMARY LANGUAGE: French; English; Netherlandish

ABSTRACT: Embryogenic cell suspensions have been initiated using explants from meristematic shoot-tips (scalps). The culture medium has been a modified Murashige and Skoog medium supplemented, according to the steps of culture, with 5 mu-M 2,4-D, 1-10, mu-M BAP or *zeatin*. The

-more-

?p
Display 10/3,AB/5 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

suspensions obtained for 5 banana varieties have regenerated plants through somatic embryogenesis. Embryogenic cell suspensions have proved to be the material of choice for *cryopreservation*, protoplast Isolation and culture and for genetic manipulation of Musa for resistance to diseases.

1992

- end of record -

?p
Display 10/3,AB/6 (Item 1 from file: 10)
DIALOG(R)File 10:AGRICOLA

3843169 22061415 Holding Library: AGL
Cryopreservation of white poplar (Populus alba L.) by vitrification of in vitro-grown shoot tips
Lambardi, M. Fabbri, A.; Caccavale, A.
Berlin : Springer-Verlag.
Plant cell reports. Jan 2000. v. 19 (3) p. 213-218.
ISSN: 0721-7714 CODEN: PCRPD8
DNAL CALL NO: QK725.P54
Language: English
Shoot tips from in vitro-grown, cold-hardened stock plants of white poplar (Populus alba L.) were successfully cryopreserved at -196 degrees C by one-step vitrification. After preculturing at 5 degrees C for 2 days on hormone-free MS medium containing different sucrose concentrations, and loading for 20 min with 2 M glycerol and 0.4 M sucrose, shoot tips were treated with the PVS2 vitrification solution and plunged directly into liquid nitrogen. Best survival rate (90%) was obtained when shoot tips were

-more-

?p
Display 10/3,AB/6 (Item 1 from file: 10)
DIALOG(R)File 10:AGRICOLA

precultured on 0.09 M sucrose, hormone-free MS medium vitrified by exposure to PVS2 solution for 60 min at 0 degrees C and, following cryo-preservation, rewarmed at 40 degrees C and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 micromolar N6-benzyladenine plus 0.5 micromolar gibberellic acid, while shoot rooting was achieved on MS medium containing 3 micromolar indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

- end of record -

?p
Display 10/3,AB/7 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

03546949 CAB Accession Number: 981606206
The effect of prefreezing treatment and cryoprotectants on the survival of cryopreserved somatic embryos and plant regeneration in Korean native citrus species.
Oh SungDo
Department of Horticulture, Chonbuk National University, Chonju 560-756, Korea Republic.
Conference Title: Proceedings of the third international ISHS symposium on in vitro culture and horticultural breeding, Jerusalem, Israel, 16-21 June, 1996.
Acta Horticulturae (No. 447): p.499-505
Publication Year: 1997
ISSN: 0567-7572
Editors: Altman, A.; Ziv, M.
ISBN: 90-6605-909-5
Language: English

-more-

?p
Display 10/3,AB/7 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

Document Type: Conference paper; Journal article
Somatic embryos were induced from the micropylar region of ovules of Citrus junos x C. grandis (C. maxima), C. grandis x C. junos and C. platymamma x C. junos on MT medium supplemented with *zeatin*. Highest rates of direct somatic embryogenesis were induced in the presence of 0.01

or 1.0 mg/litre *zeatin* . Pre-treatment with MS medium containing 10% dimethylsulfoxide (DMSO) and 1.0 M sucrose increased survival of C. junos, C. grandis and C. platymamma to 92%, 84% and 78%, respectively. The most effective vitrification solution as a cryoprotectant was a mixture of 10% glycerol, 10% ethylene glycol and 5% DMSO in MS medium containing 1.0M sucrose. Freezing pretreatment before immersion of somatic embryos in liquid N2 considerably increased the survival rate. The most effective treatment for preserving somatic embryos was the gradual step freezing method (0 to -16 to -32 deg C). Direct immersion in liquid N2 resulted in <10% survival and few plants regenerated, but after treatment with cryoprotectants and adequate pre-freezing, plant regeneration reached 80%. 9 ref.

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DIALOG(R)File 50:CAB Abstracts

03165572 CAB Accession Number: 961601134
Low temperature storage of in vitro shoots of Japanese persimmon (Diospyros kaki).
Fukui, H.; Ohba, H.; Nakamura, M.
Faculty of Agriculture, Gifu University, Fifu 501-11, Japan.
Conference Title: IPPS Japan potential region. First annual meeting, 19-22 Sep., 1994.
International Plant Propagators' Society: Combined Proceedings vol. 44 p.245-248
Publication Year: 1994, publ. 1995
Language: English
Document Type: Conference paper; Journal article
Shoot tip cultures of cultivars Fuyu and Nishimurawase, cultured on half-strength MS medium containing 1 micro M *zeatin*, were assessed for suitability for low temperature storage. At 2 deg C, explants preconditioned on medium containing 60 g sucrose/litre showed high levels

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DIALOG(R)File 50:CAB Abstracts

of viability. However, for storage at 10 deg C, preconditioning on medium containing 15 g sucrose/litre gave the best results. Shoot explants of Nishimurawase survived for 30 weeks at 10 deg C, while those of Fuyu survived for only 12 weeks at the same temperature. 7 ref.

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Display 10/3,AB/9 (Item 3 from file: 50)
DIALOG(R)File 50:CAB Abstracts

02925167 CAB Accession Number: 941610853
Initiation of embryogenic cell suspensions and plant regeneration via somatic embryogenesis in bananas and plantain Musa species.
Original Title: Culture de suspensions cellulaires embryogeniques et regeneration en plantules par embryogenese somatique chez le bananier et le bananier plantain Musa spp.
Dhed'a, D.
Faculte des Sciences, Universite de Kisangani, Zaire.
Tropicultura vol. 10 (4): p.152-154
Publication Year: 1992
ISSN: 0771-3312
Language: French Summary Language: english; dutch
Document Type: Journal article
Embryogenic cell suspension cultures were initiated using shoot tip

explants from 5 varieties on MS medium supplemented with 5 micro M 2,4-D, and 1-10 micro M benzyladenine or *zeatin*. Plantlets were successfully

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?s s14 and s5
             157  S14
            7462  S5
     S15       1  S14 AND S5
?d s15/3,ab,ti/all
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843169 22061415 Holding Library: AGL
Cryopreservation of white poplar (Populus alba L.) by vitrification of in vitro-grown shoot tips
Lambardi, M. Fabbri, A.; Caccavale, A.
Berlin : Springer-Verlag.
Plant cell reports. Jan 2000. v. 19 (3) p. 213-218.
ISSN: 0721-7714 CODEN: PCRPD8
DNAL CALL NO: QK725.P54
Language: English
Shoot tips from in vitro-grown, cold-hardened stock plants of white poplar (Populus alba L.) were successfully cryopreserved at -196 degrees C by one-step vitrification. After preculturing at 5 degrees C for 2 days on hormone-free MS medium containing different sucrose concentrations, and loading for 20 min with 2 M glycerol and 0.4 M sucrose, shoot tips were treated with the PVS2 vitrification solution and plunged directly into liquid nitrogen. Best survival rate (90%) was obtained when shoot tips were

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DIALOG(R)File 10:AGRICOLA

precultured on 0.09 M sucrose, hormone-free MS medium vitrified by exposure to PVS2 solution for 60 min at 0 degrees C and, following cryo-preservation, rewarmed at 40 degrees C and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 micromolar N6-benzyladenine plus 0.5 micromolar gibberellic acid, while shoot rooting was achieved on MS medium containing 3 micromolar indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

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